

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO

DEBORAH GALOSKI,)
Plaintiff,)
vs.) No. 1:14-cv-00553
APPLICA CONSUMER PRODUCTS,)
INC.,)
Defendant.)

The deposition of PAUL W. BORTH, Ph.D., BCE,
called for examination pursuant to Notice and the
Rules of Civil Procedure for the United States
District Courts pertaining to the taking of
depositions, taken before Elizabeth L. Vela, an
Illinois Certified Shorthand Reporter, at One North
Wacker Drive, Chicago, Illinois on the 26th day of
January, 2017, at the time of 9:16 a.m.
(Proceedings concluded at 3:55 p.m.)

Reported by: Elizabeth L. Vela, CSR
License No.: 084-003650

<p style="text-align: right;">Page 2</p> <p>1 APPEARANCES:</p> <p>2 DWORKE & BERNSTEIN, by</p> <p>3 MR. FRANK A. BARTELA,</p> <p>4 60 South Park Place, Suite 200</p> <p>5 Painesville, OH 44077-3417</p> <p>6 (216) 861-4211</p> <p>7 fbartela@dworkenlaw.com</p> <p>8 Representing the Plaintiff,</p> <p>9</p> <p>10 BARNES & THORNBURG, LLP, by</p> <p>11 MR. BRADLEY B. FALKOF,</p> <p>12 One North Wacker Drive, Suite 4400</p> <p>13 Chicago, IL 60606</p> <p>14 (312) 357-1313</p> <p>15 brad.falkof@btlaw.com</p> <p>16 Representing the Defendant.</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p>	<p style="text-align: right;">Page 4</p> <p>1 (Witness sworn.)</p> <p>2 PAUL W. BORTH, Ph.D., BCE,</p> <p>3 called as a witness herein, having been first duly</p> <p>4 sworn, was examined and testified as follows:</p> <p>5 EXAMINATION</p> <p>6 BY MR. BARTELA:</p> <p>7 Q. Good morning, Dr. Borth. My name is</p> <p>8 Frank Bartela. We met off the record a moment ago.</p> <p>9 A. Yes.</p> <p>10 Q. I'm an attorney representing the plaintiff</p> <p>11 in this matter and I'm going to ask you some</p> <p>12 questions today, okay?</p> <p>13 A. Yes.</p> <p>14 Q. All right. Mr. Borth -- or Dr. Borth,</p> <p>15 rather, could you spell your name for the record?</p> <p>16 A. Last name is spelled B-o-r-t-h.</p> <p>17 Q. Okay. And could you state your home and</p> <p>18 office address for the record?</p> <p>19 A. Home and office are the same. It's</p> <p>20 10255 Fox Trace, two words, Zionsville, Indiana</p> <p>21 46077.</p> <p>22 Q. Okay. Thank you. As I said, I'm going to</p> <p>23 ask you some questions today. I want to go over a</p> <p>24 few ground rules before we get started.</p>
<p style="text-align: right;">Page 3</p> <p>1 I N D E X</p> <p>2 WITNESS EXAMINATION</p> <p>3 PAUL W. BORTH, Ph.D., BCE</p> <p>4 BY MR. BARTELA 4</p> <p>5 BY MR. FALKOF 244</p> <p>6 BY MR. BARTELA (Further) 248</p> <p>7</p> <p>8</p> <p>9</p> <p>10 E X H I B I T S</p> <p>11 NUMBER MARKED FOR ID</p> <p>12 Borth Deposition</p> <p>13 Exhibit 1 17</p> <p>14 Exhibit 2 71</p> <p>15 Exhibit 3 84</p> <p>16 Exhibit 4 84</p> <p>17 Exhibit 5 84</p> <p>18 Exhibit 6 84</p> <p>19 Exhibit 7 129</p> <p>20 Exhibit 8 180</p> <p>21 Exhibit 9 180</p> <p>22 Exhibit 10 227</p> <p>23 Exhibit 11 227</p> <p>24 Exhibit 12 227</p>	<p style="text-align: right;">Page 5</p> <p>1 As you can see, the court reporter is</p> <p>2 taking down everything we say to make a complete</p> <p>3 and accurate record of our discussion this morning.</p> <p>4 So I would ask that when we're speaking</p> <p>5 with each other, you verbalize your answers. Is</p> <p>6 that fair?</p> <p>7 A. Yes.</p> <p>8 Q. Okay. And that we do our best not to</p> <p>9 speak over each other. I'll be the bigger offender</p> <p>10 of this, I can tell you, but does that sound fair,</p> <p>11 as well?</p> <p>12 A. Yes.</p> <p>13 Q. Okay. You're free to take a break</p> <p>14 whenever you'd like. The only stipulation there</p> <p>15 is, I would ask you answer whatever question is</p> <p>16 outstanding, and then, we'll go ahead and take the</p> <p>17 break.</p> <p>18 So this is -- we're not in a race here.</p> <p>19 So if you need to take a break, for any reason, you</p> <p>20 just let me know, and we'll accommodate that, okay?</p> <p>21 A. Yes, sir.</p> <p>22 Q. I also want to make sure that you</p> <p>23 understand the question that I'm asking you. So</p> <p>24 if, for some reason, a question is unclear or you</p>

<p style="text-align: right;">Page 6</p> <p>1 don't understand it, I want you to let me know. Is 2 that fair? 3 A. Yes. 4 Q. If I ask you a question and you answer me, 5 I'm going to assume that you understood what I was 6 asking. Is that fair? 7 A. Yes. 8 Q. Okay. Are you on any drugs or medication 9 today that might affect your ability to give 10 accurate or truthful testimony? 11 A. No. 12 Q. Okay. Any other reason you might not be 13 able to do so? 14 A. No. 15 Q. Okay. Have you ever been deposed before? 16 A. No. 17 Q. So this is your first time? 18 A. Yes. 19 Q. Okay. Is this your first time you've been 20 engaged as an expert witness? 21 A. Yes. 22 Q. Are you currently engaged in any other 23 litigation matters as an expert witness? 24 A. No.</p>	<p style="text-align: right;">Page 8</p> <p>1 And as I understand it, they have clients 2 that seek experts in various things that they might 3 have on file. And then, they match experts with 4 the client -- with their client, and then, we talk 5 to see whether the match is good. 6 Q. Okay. So am I fair in understanding that 7 GLG Research is an expert witness firm that 8 provides expert witnesses? 9 A. That's how I understand it, yes. 10 Q. Okay. When did you become a counsel 11 member of GLG Research? 12 A. It would have been in the middle of 2015. 13 Q. Okay. So this was rather recent that you 14 joined GLG Research? 15 A. Yes. Yes. 16 Q. And once you joined GLG Research, were you 17 presented with any other opportunities to serve as 18 an expert witness? 19 A. Yes. Their process -- nothing ever went 20 as far as this did. I would say maybe I was 21 contacted two or three times by a client over the 22 phone. 23 And you know, you talk, and basically, 24 it's a vetting process. And those other two or</p>
<p style="text-align: right;">Page 7</p> <p>1 Q. Okay. Have you ever done any work for 2 Barnes & Thornburg before? 3 A. No. 4 Q. Ever worked for Mr. Falkof in any way? 5 A. No. 6 Q. What about Mr. Jeff Sanford? 7 A. No. 8 Q. Okay. Have you ever done any work for 9 Applica Consumer Products before? 10 A. No. 11 Q. What about Spectrum Brands? 12 A. No. 13 Q. Black & Decker? 14 A. No. 15 Q. Have you ever done any work for any 16 manufacturer of ultrasonic pest repellers? 17 A. No. 18 Q. I want to talk a little bit about your 19 engagement in this case. 20 A. Okay. 21 Q. Who contacted you first? 22 A. The first contact was made by 23 GLG Research. They're, as I describe it, an agency 24 that I am a counsel member of.</p>	<p style="text-align: right;">Page 9</p> <p>1 three just fell off the table and never happened. 2 Q. Can you tell me what types of cases those 3 were? 4 A. They were primarily pest management -- 5 agricultural pest management opportunities. 6 I don't know whether it was -- I don't 7 know whether it would have been the plaintiff or 8 the defense that contacted me, but each one of them 9 had something to do with agricultural pest 10 management. 11 Q. Okay. When you say agricultural pest 12 management, are we talking about farms -- pest 13 management on farms? 14 A. It could be. 15 Q. It could be? 16 A. It could be farms, it could be turf and 17 ornamental, but primarily farms and companies that 18 produce products for farmers. 19 Q. And you said that there were two or three 20 of these opportunities that -- 21 A. I'm guessing. 22 Q. -- just didn't pan out? 23 A. Yes. 24 Q. Can you tell me why they didn't pan out?</p>

<p style="text-align: right;">Page 10</p> <p>1 A. No.</p> <p>2 Q. Just kind of beyond your scope of</p> <p>3 knowledge?</p> <p>4 A. It's their choice to reconnect, if they</p> <p>5 want to, and they just never reconnected.</p> <p>6 Q. Okay. Why did you join GLG Research?</p> <p>7 A. Well, it's an opportunity for me to have</p> <p>8 some professional engagement after retirement from</p> <p>9 my former employer.</p> <p>10 Q. Okay. So you were first contacted by</p> <p>11 GLG Research. What type of information did they</p> <p>12 give you?</p> <p>13 A. Did they give me? They would have given</p> <p>14 me a brief -- a paragraph, basically, that</p> <p>15 described the case and whether I thought I would be</p> <p>16 interested in the opportunity is the way they</p> <p>17 phrase it.</p> <p>18 And if I say yes, which I did to that,</p> <p>19 then that yes goes back to the client and the</p> <p>20 client decides whether -- their client decides</p> <p>21 whether to contact me or not.</p> <p>22 Q. Okay. When did you -- when were you first</p> <p>23 contacted by GLG Research in this case?</p> <p>24 A. November of 2016. Maybe late October or</p>	<p style="text-align: right;">Page 12</p> <p>1 was?</p> <p>2 A. Yeah. And I don't know whether anything</p> <p>3 became of them. Avis trying to put that automatic</p> <p>4 toll thing -- responder on your -- when you rent a</p> <p>5 car, and then -- okay? So that's going forward by</p> <p>6 somebody in New York.</p> <p>7 There was a John -- I've got a John Deere</p> <p>8 lawn tractor. And there was something about the</p> <p>9 engine wasn't up to specs or something. So as a</p> <p>10 member, yes, but never as an expert witness.</p> <p>11 Q. So in these cases, did you receive notices</p> <p>12 in the mail --</p> <p>13 A. Yes.</p> <p>14 Q. -- to let you know you were a class</p> <p>15 member?</p> <p>16 A. Yes.</p> <p>17 Q. Did you opt out?</p> <p>18 A. Usually not, if I can find the</p> <p>19 documentation that's being requested.</p> <p>20 Q. If you can find the documentation, then</p> <p>21 you will remain a part of the class?</p> <p>22 A. Yes.</p> <p>23 Q. Okay. A moment ago, you mentioned that in</p> <p>24 the first conversation you had with Mr. Falkof, you</p>
<p style="text-align: right;">Page 11</p> <p>1 November.</p> <p>2 Q. And how soon after that were you then</p> <p>3 contacted by someone at Mr. Falkof's firm?</p> <p>4 A. I believe it was November 2nd when I first</p> <p>5 got the letter of engagement.</p> <p>6 Q. Okay. And who did you speak with?</p> <p>7 A. Mr. Falkof.</p> <p>8 Q. Do you remember what you were told about</p> <p>9 this case?</p> <p>10 A. Yes.</p> <p>11 Q. And what was that?</p> <p>12 A. That the case was about ultrasonic pest</p> <p>13 repellers.</p> <p>14 And the first conversation was whether I</p> <p>15 had any experience with ultrasonic pest repellers</p> <p>16 and that it was a class action suit. He was</p> <p>17 representing the plain -- sorry. The defense. And</p> <p>18 that's about all the details I can recall.</p> <p>19 Q. Have you ever been involved in a class</p> <p>20 action lawsuit before?</p> <p>21 A. Not as an expert witness.</p> <p>22 Q. Maybe as a class member, though?</p> <p>23 A. As a class member, yes.</p> <p>24 Q. What -- do you remember what case that</p>	<p style="text-align: right;">Page 13</p> <p>1 were asked whether you had any experience with</p> <p>2 ultrasonic pest repellers.</p> <p>3 Do you have any -- from a scientific</p> <p>4 standpoint, do you have any experience working with</p> <p>5 ultrasounds?</p> <p>6 A. No.</p> <p>7 Q. Okay. Any experience with the use of</p> <p>8 ultrasonic waves in different scientific</p> <p>9 applications?</p> <p>10 A. Not in scientific applications, no. I --</p> <p>11 you know, to kind of cut to the chase, what I did</p> <p>12 tell him at the time was that my father had one of</p> <p>13 these units in his little trailer that he owned.</p> <p>14 And he swore by it. And that's the extent of my</p> <p>15 involvement.</p> <p>16 Q. So you had a family member that had an</p> <p>17 ultrasonic pest repeller --</p> <p>18 A. Yes.</p> <p>19 Q. -- is that fair?</p> <p>20 A. Yes.</p> <p>21 Q. But as a scientist and in your experience</p> <p>22 as a scientist, you've never run an experiment with</p> <p>23 ultrasonic waves?</p> <p>24 A. No, I have not.</p>

<p style="text-align: right;">Page 14</p> <p>1 Q. Tested an ultrasonic pest repeller?</p> <p>2 A. I have not.</p> <p>3 Q. Been a part of any type of research about</p> <p>4 ultrasonic pest repellers?</p> <p>5 A. Not -- no.</p> <p>6 Q. Designed any scientific protocols to</p> <p>7 conduct experiments on ultrasonic pest repellers?</p> <p>8 A. No.</p> <p>9 Q. So when you're engaged for this matter,</p> <p>10 that's your first contact with ultrasonic pest</p> <p>11 repellers, from a scientific standpoint, is that</p> <p>12 fair?</p> <p>13 A. Yes.</p> <p>14 MR. BARTELA: Could we go off the record?</p> <p>15 (A short break was taken.)</p> <p>16 BY MR. BARTELA:</p> <p>17 Q. Thank you, Dr. Borth. So in this phone</p> <p>18 call you had with Mr. Falkof, were you retained at</p> <p>19 that point?</p> <p>20 A. He -- not immediately. He -- the</p> <p>21 conversation ended with him saying he had to go</p> <p>22 back to his client to discuss, and then, he'd get</p> <p>23 back to me.</p> <p>24 Q. Do you know if he talked to any other</p>	<p style="text-align: right;">Page 16</p> <p>1 Q. Okay. So after your call with Mr. Falkof,</p> <p>2 at a certain point, obviously, you were engaged to</p> <p>3 be an expert witness in this case, is that right?</p> <p>4 A. Yes.</p> <p>5 Q. And after that engagement, was material</p> <p>6 provided to you to review?</p> <p>7 A. Yes, it was.</p> <p>8 Q. What was given to you?</p> <p>9 A. What's listed -- what's cited. I think</p> <p>10 it's Nos. 1 through 44. Six pounds of paper came</p> <p>11 in the mail.</p> <p>12 Q. We've certainly created a voluminous</p> <p>13 record in this case, haven't we?</p> <p>14 A. Yes.</p> <p>15 Q. The one thing I'm great at is generating</p> <p>16 paper, which I don't know if Brad will agree on</p> <p>17 that point, but anyways -- okay.</p> <p>18 So was there any material that you</p> <p>19 specifically requested that you weren't given?</p> <p>20 A. No.</p> <p>21 Q. Let's go ahead and we'll mark your expert</p> <p>22 report.</p> <p>23 MR. BARTELA: Could you please mark this as</p> <p>24 Borth 1?</p>
<p style="text-align: right;">Page 15</p> <p>1 expert witnesses?</p> <p>2 A. I do not.</p> <p>3 Q. Other than this brief -- and correct me if</p> <p>4 I'm wrong.</p> <p>5 Other than this brief sort of paragraph</p> <p>6 you got from GLG Research about the case, did you</p> <p>7 receive any other materials before you spoke with</p> <p>8 Mr. Falkof?</p> <p>9 A. No.</p> <p>10 Q. Did you do any investigating on your own?</p> <p>11 A. After I talked to him, I -- and before I</p> <p>12 got the call back that, you know, offered me the</p> <p>13 opportunity, I did go on line and kind of looked at</p> <p>14 what the current -- whatever I could find browsing,</p> <p>15 searching, whatever you want to call it on line,</p> <p>16 Googling, to see what was being said about</p> <p>17 ultrasonics.</p> <p>18 Q. And do you remember what websites you</p> <p>19 visited?</p> <p>20 A. No, I don't.</p> <p>21 Q. Okay. Do you remember what you found?</p> <p>22 A. I found that they are still being sold.</p> <p>23 Different manufacturers, different companies sell</p> <p>24 them. That's about it.</p>	<p style="text-align: right;">Page 17</p> <p>1 (Whereupon, Borth Deposition</p> <p>2 Exhibit 1 was marked for</p> <p>3 identification.)</p> <p>4 BY MR. BARTELA:</p> <p>5 Q. Dr. Borth, you have in front of you what</p> <p>6 we've marked as Borth 1 --</p> <p>7 A. Yes.</p> <p>8 Q. -- which is a copy of your -- of</p> <p>9 defendant's notice of filing of your expert report.</p> <p>10 Your expert report, as well as your C.V.</p> <p>11 are attached as exhibits, is that correct?</p> <p>12 A. Yes.</p> <p>13 Q. Okay. So have you seen this document</p> <p>14 before?</p> <p>15 A. Yes.</p> <p>16 Q. Did you participate in preparing this</p> <p>17 document?</p> <p>18 A. I did.</p> <p>19 Q. Okay. If we look at the front page here,</p> <p>20 we have -- your information is listed as Dr. Paul</p> <p>21 W. Borth, Ento-Centric Consulting, 10255 Fox Trace,</p> <p>22 Zionsville, Indiana.</p> <p>23 That's the address you gave earlier,</p> <p>24 correct?</p>

<p style="text-align: right;">Page 18</p> <p>1 A. Yes.</p> <p>2 Q. What's Ento-Centric Consulting?</p> <p>3 A. That's a business name I came up with.</p> <p>4 It's an LLC, actually. It's a doing business as.</p> <p>5 The one that's on file with the State of</p> <p>6 Arizona -- excuse me. Indiana is Paul W. Borth</p> <p>7 Consulting, LLC.</p> <p>8 Nobody knows Paul W. Borth. So I created</p> <p>9 a d/b/a, Ento-Centric. And not everybody knows</p> <p>10 what that is either, believe me.</p> <p>11 Q. What does Ento-Centric mean?</p> <p>12 A. It refers to entomology.</p> <p>13 Entomology-Centric Consulting.</p> <p>14 Q. Got you. What -- so your -- the sort of</p> <p>15 legal name of your entity is Paul W. Borth</p> <p>16 Consulting.</p> <p>17 And what do you do -- what types of</p> <p>18 services does Paul W. Borth Consulting offer?</p> <p>19 A. Well, I'll take a phone call from anybody</p> <p>20 that calls me.</p> <p>21 Things I've been involved in the past, I</p> <p>22 took a ghost-writing job for a small urban pest</p> <p>23 management company, a technical article on bed</p> <p>24 bugs, actually.</p>	<p style="text-align: right;">Page 20</p> <p>1 we've got a copy of your C.V.</p> <p>2 A. Oh. Back in the back. Okay. Got it.</p> <p>3 Q. Are you there?</p> <p>4 A. Almost.</p> <p>5 Q. So is this a copy of your C.V.?</p> <p>6 A. Yes.</p> <p>7 Q. And is this the most up-to-date copy you</p> <p>8 have?</p> <p>9 A. Yes, it is.</p> <p>10 Q. Did you prepare this specifically for this</p> <p>11 litigation?</p> <p>12 A. No. The only addition I made was the</p> <p>13 first bullet point under the 2015 to present.</p> <p>14 Q. Okay. So if someone called Ento-Centric</p> <p>15 Consulting and they wanted your C.V., this is what</p> <p>16 you'd send them?</p> <p>17 A. Yes.</p> <p>18 Q. I want to go back just for a moment and</p> <p>19 tie up a loose end real quick.</p> <p>20 The conversation you had with Mr. Falkof,</p> <p>21 did you provide him your opinion on ultrasonic pest</p> <p>22 repellers at that point?</p> <p>23 A. The only statement I made was that my</p> <p>24 father believed in the ultrasonic pest repeller</p>
<p style="text-align: right;">Page 19</p> <p>1 Through GLG, I've done an hour here, an</p> <p>2 hour there consulting with their clients that would</p> <p>3 call when market conditions -- you know, trying to</p> <p>4 forecast.</p> <p>5 These people that would call me could be</p> <p>6 investment bankers. That's typically what you get,</p> <p>7 you know, trying to get an expert or a consultant</p> <p>8 to forecast what the market is going to do, up or</p> <p>9 down.</p> <p>10 Q. So someone who might be interested in a</p> <p>11 business venture, where they're buying a business</p> <p>12 related to entomology might call you and figure out</p> <p>13 if that's a smart decision?</p> <p>14 A. Possibly, yes.</p> <p>15 Q. What are other types of consulting</p> <p>16 services do you offer, if any?</p> <p>17 A. That's it.</p> <p>18 Q. Okay. Do you do any consulting on</p> <p>19 ultrasonic pest repellers, outside of this case?</p> <p>20 A. Outside of this case, no.</p> <p>21 Q. Have you been engaged -- strike that. I</p> <p>22 know the answer to that.</p> <p>23 If you'll turn to -- let's see. What's</p> <p>24 within this Exhibit 1 marked at the top as 97-2,</p>	<p style="text-align: right;">Page 21</p> <p>1 that he had in his little trailer.</p> <p>2 Q. Before you were actually engaged to serve</p> <p>3 as an expert witness for the defendant in this</p> <p>4 case, did you provide an opinion on the efficacy of</p> <p>5 ultrasonic pest repellers?</p> <p>6 A. No.</p> <p>7 Q. Okay. Let's turn back to your C.V. here.</p> <p>8 So it does list that you've been the principal of</p> <p>9 Paul W. Borth Consulting from 2015 to present.</p> <p>10 A. Yes.</p> <p>11 Q. We've covered your experience there.</p> <p>12 Prior to -- excuse me.</p> <p>13 Prior to forming Paul W. Borth Consulting,</p> <p>14 where were you employed?</p> <p>15 A. Dow AgroSciences.</p> <p>16 Q. Okay. And what is Dow AgroSciences?</p> <p>17 A. It's a wholly-owned business within the</p> <p>18 Dow Chemical Company focused strictly on</p> <p>19 agriculture.</p> <p>20 Q. Okay. And --</p> <p>21 A. Well, excuse me. I should say it broader.</p> <p>22 It's ag -- it's pest management, basically.</p> <p>23 So it's agriculture, urban pest</p> <p>24 management, which is important here, turf and</p>

<p style="text-align: right;">Page 22</p> <p>1 ornamental business, forestry.</p> <p>2 I mean, wherever there are weed pathogens</p> <p>3 or insect pests, they've got some interest.</p> <p>4 Q. Let's dig into that a little bit, just</p> <p>5 because I'm not a pest expert like yourself.</p> <p>6 A. Okay.</p> <p>7 Q. So you said that there were -- there was</p> <p>8 an urban application within --</p> <p>9 A. Yes.</p> <p>10 Q. -- Dow AgroSciences. And what do you mean</p> <p>11 when you say that?</p> <p>12 A. Urban to Dow AgroSciences implies pests in</p> <p>13 and around homes, building -- commercial buildings.</p> <p>14 So the insect pests that we were really</p> <p>15 involved in when I was last there was termites,</p> <p>16 which of course, is under that definition urban</p> <p>17 pests. It attacks homes.</p> <p>18 Cockroaches, ants, the type of pests that</p> <p>19 you'd find in an urban -- well, in a home</p> <p>20 setting -- residential setting or commercial.</p> <p>21 Q. And what types of products would</p> <p>22 Dow AgroSciences make and sell for the urban</p> <p>23 application?</p> <p>24 A. To the urban application, it would be</p>	<p style="text-align: right;">Page 24</p> <p>1 A. No.</p> <p>2 Q. -- electronic monitoring?</p> <p>3 A. Well, I was manager of a project that led</p> <p>4 up to where they are right now, and then, I</p> <p>5 retired. So --</p> <p>6 Q. So --</p> <p>7 A. I don't know where it is right now.</p> <p>8 Q. So once you retired, they got, obviously,</p> <p>9 more advanced and you weren't involved in that once</p> <p>10 you left?</p> <p>11 A. I understand that, but once you retire,</p> <p>12 the doors are locked and you don't get to know</p> <p>13 what's going on.</p> <p>14 Q. And you also mentioned that in the urban</p> <p>15 application, there would be herbicides?</p> <p>16 A. Yes.</p> <p>17 Q. What are herbicides?</p> <p>18 A. Yes. Yes.</p> <p>19 Q. What are herbicides?</p> <p>20 A. Herbicides are usually chemicals that are</p> <p>21 toxic to weeds.</p> <p>22 Q. Again, this might be a spray or some type</p> <p>23 of chemical you put on a weed?</p> <p>24 A. Usually a spray, yes.</p>
<p style="text-align: right;">Page 23</p> <p>1 primarily insecticides. Well -- and herbicides,</p> <p>2 too, for weeds.</p> <p>3 Q. So when you say insecticides, do you mean</p> <p>4 sprays or --</p> <p>5 A. Yes.</p> <p>6 Q. -- chemicals that could be used to</p> <p>7 eliminate pests?</p> <p>8 A. Primarily, yes. There is a big area that</p> <p>9 is not really a spray. It's called a bait -- you</p> <p>10 know, a bait matrix, basically, which the insect</p> <p>11 pests would feed on. So it's not a spray. It's</p> <p>12 bring them in and they'll feed on this toxic</p> <p>13 material.</p> <p>14 Q. Okay. So would that be like, for</p> <p>15 instance, pellets you could put in a container in</p> <p>16 your basement that mice would eat?</p> <p>17 A. Well, they were not involved in rodents.</p> <p>18 Q. Okay. So they were strictly specific to</p> <p>19 insects?</p> <p>20 A. Yes. As I was leaving, they were involved</p> <p>21 in rodent monitoring with electronic networking and</p> <p>22 signals -- bluetooth signals and everything but not</p> <p>23 the toxic and to kill the pest.</p> <p>24 Q. Did you work on that --</p>	<p style="text-align: right;">Page 25</p> <p>1 Q. Outside of the urban setting, you</p> <p>2 mentioned two other applications.</p> <p>3 A. Uh-huh.</p> <p>4 Q. What were those again?</p> <p>5 A. For Dow AgroSciences?</p> <p>6 Q. Yes.</p> <p>7 A. It would have been agriculture, itself,</p> <p>8 and I probably mentioned turf and ornamental.</p> <p>9 Q. And did you work within any applications</p> <p>10 on the turf and ornamental?</p> <p>11 A. Yes. Again, as a manager, not as the</p> <p>12 direct researcher.</p> <p>13 Q. Okay. And what types of products would we</p> <p>14 expect from the turf and ornamental?</p> <p>15 A. They would have been herbicides. Golf</p> <p>16 courses were a big client. So getting dandelions</p> <p>17 out of the -- you know, whatever is considered a</p> <p>18 weed by the client, that's -- you try to develop a</p> <p>19 management strategy, typically chemical.</p> <p>20 Q. And what about the remaining application,</p> <p>21 which was agricultural? What types of products --</p> <p>22 A. Well --</p> <p>23 Q. -- would be produced there?</p> <p>24 A. Well, again, in an agricultural setting,</p>

<p style="text-align: right;">Page 26</p> <p>1 you have insect pests, weed pests, and fungal 2 pests. And so Dow AgroSciences was involved in the 3 management of all three of those disciplines. 4 Q. Okay. And it says here you spent over 5 27 years with Dow AgroSciences, is that right? 6 A. Yes. Yes. 7 Q. And in that time, you held a number of 8 different positions? 9 A. Yes. 10 Q. I'd like to start at the beginning -- 11 A. Okay. 12 Q. -- and work our way forward. So it looks 13 like you -- am I correct that you started there in 14 1987? 15 A. Yes, it is. 16 Q. And what was your first position? 17 A. It was as a field scientist in the state 18 of Indiana performing research on the developmental 19 compounds that at that time Dow Chemical -- it 20 hadn't yet been named AgroSciences but research 21 compounds in the pipeline that had to be tested in 22 the field to see whether they were efficacious or 23 not. 24 Q. Okay. So these would be chemical</p>	<p style="text-align: right;">Page 28</p> <p>1 a human resource manager. So that I had maybe a 2 number of -- say 300 people in several departments, 3 for which I was their HR manager. And if they ever 4 needed anything, they'd come to me, anything 5 personal, you know, what typical HR managers do. 6 Q. Okay. So you moved more into like an 7 administrative role, is that fair? 8 A. Yeah. Hands-on with the people, but yes, 9 I've -- and actually, the way that -- of course, 10 they didn't report -- those people in my files 11 didn't report to me directly. I was kind of the -- 12 supposedly the neutral HR manager on the outside. 13 Q. Okay. And in this position, are you doing 14 any scientific work in that five years? 15 A. No, other than being -- I'll say familiar 16 with the work that these people did. And they were 17 all scientists. 18 Q. And in 2003, then, you become the R & D 19 leader in global and U.S. urban pest management -- 20 A. Yes. 21 Q. -- in the turf and ornamental division? 22 A. Yes. 23 Q. You held that position for five years, it 24 looks like, right?</p>
<p style="text-align: right;">Page 27</p> <p>1 applications? 2 A. At that time, yes. 3 Q. And then, you were promoted to -- it says 4 here national R & D leader in crop protection 5 division. 6 A. Yes. 7 Q. What does that mean? 8 A. That just means instead of being in the 9 field doing the actual research, I moved to 10 Indianapolis where the headquarters were and 11 managed the scientists who did do the research. 12 Q. Okay. And again, this was managing 13 scientists involved with chemical applications? 14 A. At that time, yes. 15 Q. Okay. Then, in 1998, it says here that 16 you moved to the role of human resources manager in 17 R & D and commercial functions. 18 Is that a separate position or did you 19 hold that position alongside your R & D -- 20 A. No, that's a separate position. 21 Q. And what did you do there? 22 A. A couple different -- a couple different 23 things. 24 The one that most people identify with is</p>	<p style="text-align: right;">Page 29</p> <p>1 A. Yes. 2 Q. What were your duties in that role? 3 A. That was an administrative role; again, a 4 management role, responsible for the scientists who 5 were in the field conducting the experiments that 6 we needed to have done to test our developmental 7 products, budget management, project proposals, 8 that sort of thing. 9 Q. Okay. Are you -- at this point, 2003 to 10 2008, are you doing any scientific experiments? 11 A. Not personally. 12 Q. So you're kind of overseeing things? 13 A. I'm overseeing them. I'm responsible for 14 the people who are doing them. 15 Q. And then, it looks like you changed 16 positions again in 2008. You become the leader of 17 Delivery Systems Technology Center? 18 A. Yes. 19 Q. Can you tell me what that means? 20 A. That was a newly created center. I was 21 the first one to start that up. 22 Delivery systems in the agricultural 23 settings implies that it's the way that the 24 chemical gets to the plant or the insect or</p>

<p style="text-align: right;">Page 30</p> <p>1 whatever the target is.</p> <p>2 And so usually, in most people's minds, if</p> <p>3 you think of formulation, the chemical, the active</p> <p>4 ingredient could be delivered in a dry form, in a</p> <p>5 liquid form, in a pellet form, whatever.</p> <p>6 So this was a new center that I ran,</p> <p>7 started up that would explore new areas of delivery</p> <p>8 systems.</p> <p>9 Q. Okay. And were you doing any</p> <p>10 experimenting personally at that point or are you</p> <p>11 just overseeing the researchers again?</p> <p>12 A. Right, just overseeing.</p> <p>13 Q. Okay. And then, your final position with</p> <p>14 Dow -- it looks like it was from 2012 to '15.</p> <p>15 A. Yes.</p> <p>16 Q. It says you were the leader of Discovery</p> <p>17 Phase Technology Center and Learning and</p> <p>18 Effectiveness Center.</p> <p>19 A. Yes.</p> <p>20 Q. Can you tell me what that means?</p> <p>21 A. Two different things. Let's start with</p> <p>22 Discovery Phase Technology Center.</p> <p>23 In the Dow AgroSciences R & D world, new</p> <p>24 products -- candidate products are, quote,</p>	<p style="text-align: right;">Page 32</p> <p>1 zeros, 0.00 out to six.</p> <p>2 And so it's a very -- it's a very tight --</p> <p>3 a very tight discipline that gets supposedly --</p> <p>4 that's what you're working toward, get yours -- all</p> <p>5 your processes in a department to be so efficient</p> <p>6 that there are .000 defects in your product,</p> <p>7 whatever that might be.</p> <p>8 Q. Okay. And in 2015, that's when you left</p> <p>9 Dow?</p> <p>10 A. Yes. Retired.</p> <p>11 Q. You retired?</p> <p>12 A. Yes.</p> <p>13 Q. Okay. Did you retire of your own volition</p> <p>14 or were you instructed to retire?</p> <p>15 A. I was asked to retire.</p> <p>16 Q. Okay. Were there any --</p> <p>17 A. Well, I mean, there was -- I should say --</p> <p>18 there was no choice. I mean, they had -- the job</p> <p>19 was going away. So I had enough years in the</p> <p>20 company that I could retire instead of, you know --</p> <p>21 Q. Was that related in any way to your</p> <p>22 performance?</p> <p>23 A. No, not at all. Not to my knowledge. I</p> <p>24 wouldn't think so.</p>
<p style="text-align: right;">Page 31</p> <p>1 discovered at the lab bench, basically, inside a</p> <p>2 chemistry -- for the most part, a chemistry lab.</p> <p>3 They have to go through various steps and hurdles</p> <p>4 before they get to the field to determine whether</p> <p>5 they're registrable with EPA.</p> <p>6 And so the Discovery Phase Technology</p> <p>7 Center was a network of people and places around</p> <p>8 the world that tested these discovery compounds.</p> <p>9 They had not yet been advanced, let's say, to a</p> <p>10 development stage or predevelopment. They were</p> <p>11 under scrutiny to see whether they met the</p> <p>12 criteria.</p> <p>13 The Learning and Effectiveness Center was</p> <p>14 completely different. That was more of a -- I'd</p> <p>15 call it a quality control type center, a group of</p> <p>16 people who were engaged in six sigma type projects</p> <p>17 to make the departments that I worked with more</p> <p>18 efficient. So I led that small group of people but</p> <p>19 very different from the discovery phase.</p> <p>20 Q. Okay. What do you mean by six sigma?</p> <p>21 A. Six sigma is a methodology that -- I don't</p> <p>22 know who -- there's some -- I don't know who first</p> <p>23 came up with that moniker, but it implies that you</p> <p>24 reduce defects in a process to a level of six</p>	<p style="text-align: right;">Page 33</p> <p>1 Q. Okay. It looks here on your C.V. that you</p> <p>2 received your Ph.D. from the University of Arizona.</p> <p>3 A. That's correct.</p> <p>4 Q. And what discipline was your Ph.D. in?</p> <p>5 A. Entomology.</p> <p>6 Q. Okay. Were there any specialties or</p> <p>7 subsections?</p> <p>8 A. Yes. The minor was plant pathology.</p> <p>9 Q. What is plant pathology?</p> <p>10 A. That's the study of diseases of plants.</p> <p>11 Q. It says you wrote your dissertation here,</p> <p>12 which was titled Traditional and Geostatistical</p> <p>13 Modeling of Pink Bollworm Spatial Dynamics in</p> <p>14 Arizona Cotton with Application of Sampling and</p> <p>15 Computer Mapping. That's a mouthful --</p> <p>16 A. That's it.</p> <p>17 Q. -- Dr. Borth.</p> <p>18 A. That's it.</p> <p>19 Q. And what -- can you tell us briefly what</p> <p>20 that was about?</p> <p>21 A. Yes, I can. Okay. The ultimate objective</p> <p>22 was to -- this -- at the time, this insect, pink</p> <p>23 bollworm, was a major pest of cotton in Arizona and</p> <p>24 Southern California.</p>

<p style="text-align: right;">Page 34</p> <p>1 And farmers, traditionally, to control 2 this insect sprayed their entire fields, just come 3 in with an airplane and blanket the whole field 4 several times in a season with this -- with 5 insecticides. 6 The purpose of this project was to 7 determine if there was a way to predict where the 8 insects would invade the field and where they would 9 be most heavily concentrated so that the farmer, if 10 he chose, could spray that small area instead of 11 the whole field, which maybe a lot of it wasn't 12 needed and the insects weren't there. 13 So that's what this was, to try to 14 identify where the pink bollworm entered a field, 15 and then, take that information, if it was 16 predictable, and give it to the farmer and say you 17 really should -- you only have to spray this piece 18 of the field instead of the whole thing. 19 Q. Did -- when you went to -- it looks like 20 you went to Dow right after you were done at the 21 University of Arizona -- 22 A. Yes. 23 Q. -- is that right? 24 A. Yes.</p>	<p style="text-align: right;">Page 36</p> <p>1 A. Well, yeah, I guess you could look up the 2 numbers. They were all involving bed bugs -- 3 Q. And -- 4 A. -- and electronic systems. 5 Q. What type of electronic systems? 6 A. Well, as I described before -- tried to 7 describe, as I was leaving the company, we were 8 working with -- I'll call it remote monitoring of 9 insect pests. Excuse me. Not insect. Rodent 10 pests, actually. Mice. 11 We -- so the network system -- the patent 12 wasn't just mine but with others, co-inventors, was 13 around the -- I'll call it signaling. 14 If a mouse or a rat hit one of our traps, 15 it sent off a signal that was picked up by a 16 computer, basically, and stored in a database. So 17 we could tell -- if you had various traps around a 18 building, you knew which ones were being hit and 19 which ones weren't. 20 Q. Okay. And was that ever turned into a 21 commercial product? 22 A. I believe they're -- right now, I believe 23 they're going down that road, but I don't have any 24 firm knowledge of it.</p>
<p style="text-align: right;">Page 35</p> <p>1 Q. Were you able to put that research into 2 practice at all? 3 A. Only -- well, as -- I -- my first position 4 with Dow Chemical was in Iowa. And they don't grow 5 any cotton in Iowa and there's no pink bollworms in 6 Iowa, but the methodology that I used in Arizona 7 was applicable to insect pests of corn in Iowa. 8 And with one of the University of Iowa -- 9 or excuse me. Iowa State University. A big 10 difference. One of those -- one of their 11 entomology professors -- we did several research 12 studies that used this geostatistical analysis on 13 this other insect, which was corn rootworm. 14 Q. Okay. Do you hold any patents? 15 A. Yes. 16 Q. And how many -- 17 A. Well, not solely. I mean, they're 18 co-authored, whatever you call it. I think there's 19 six of them. 20 Q. Okay. And are those listed in your C.V. 21 here? I think, somewhere, it said that. 22 A. I wonder. I'm not sure. I have to look. 23 No, I just -- 24 Q. Oh. If you look --</p>	<p style="text-align: right;">Page 37</p> <p>1 Q. So were all these patents you list here -- 2 which it looks like there are -- there are six. 3 Were those all focused on that type of 4 device that you just explained for us? 5 A. Not the ones on bed bugs. That was 6 different. 7 Q. Can you tell us about those? 8 A. They -- those were all around how could -- 9 trying to answer -- well, the patent was based on 10 the -- I'll call it identification of a bed bug in 11 a room, let's say. I mean, again, it's probably 12 easier to start from the end result and work 13 backwards. 14 If you're in a hotel room -- let's say 15 you're the hotel owner. You want to know whether 16 you've got bed bugs in there or not so your clients 17 don't get bitten at night. You'd like to know 18 whether they're there. 19 Well, we were trying to develop a product 20 that would monitor a hotel room based on -- and 21 this is what's different than the other one. Based 22 on the -- I'll call them pheromones, the 23 fragrances, if you will, that bed bugs give off. 24 And so that monitor was based on picking</p>

<p style="text-align: right;">Page 38</p> <p>1 up those smells, odors. And if it did have an 2 odor, then it would send a signal and alert the 3 proprietor that this room might be infested. 4 Q. Okay. All right. One thing I don't see 5 in your C.V. -- and I think I know the answer to 6 it, because we talked about it already, but there's 7 no list of any cases you've participated in within 8 the last four years, and that's because you 9 haven't? 10 A. I have not. 11 Q. At your time at Dow, did you publish any 12 academic papers? 13 A. No, nothing that would -- let me under -- 14 let me ask you, when you say academic papers, do 15 you mean published in the -- in refereed journals? 16 Q. Yeah, any -- that's a great qualifier. 17 Yeah, any paper that was published in a 18 peer-reviewed journal. 19 A. No. 20 Q. No? Okay. Before your time at Dow, did 21 you publish any peer-reviewed articles? 22 A. During grad school. I can't even remember 23 how many, but I published one based on my masters 24 degree.</p>	<p style="text-align: right;">Page 40</p> <p>1 I'd get up, and you know, orally give my papers, in 2 quotes. 3 Q. Were any of those focused on -- 4 A. No. 5 Q. -- ultrasonic pest repellers? 6 A. None. 7 Q. Or the use of ultrasonic waves to repel 8 insects -- 9 A. No. 10 Q. -- or rodents? 11 A. No. 12 Q. Dr. Borth, prior to today's deposition, 13 did you meet with anybody to discuss the 14 deposition? 15 A. Yes. 16 Q. Who did you meet with? 17 A. Mr. Falkof. 18 Q. About how long did you meet with him for? 19 A. On Monday, we met face to face for about 20 two hours. 21 Q. Okay. Were there any other meetings? 22 A. No. 23 Q. Did you review any documents, memos, 24 notes, videotapes, audiotapes, photographs during</p>
<p style="text-align: right;">Page 39</p> <p>1 I was co-author on a couple of them while 2 I was in Dow Chemical, but it wasn't -- it was 3 related to that geostatistical modeling that I -- 4 the Iowa State University professor was actually 5 the primary author. I was just like third in line 6 or something. So -- 7 Q. Understood. 8 A. -- I really don't take a lot of credit for 9 that. 10 Q. And were -- none of these papers had any 11 focus on using ultrasonic waves to repel pests? 12 A. None at all. 13 Q. Okay. It says here that you were an 14 author or co-author of over 25 significant 15 non-refereed publications -- 16 A. Yeah. 17 Q. -- and conference proceedings? 18 A. Yes. 19 Q. So are those maybe papers for seminars? 20 A. Exactly. Annual conferences of the 21 Entomological Society of America. I usually gave a 22 10-minute talk at their annual meeting and 23 sometimes at their branch meetings. That's the 24 type of thing. They were not refereed by anybody.</p>	<p style="text-align: right;">Page 41</p> <p>1 that meeting? 2 A. Actually, no. I don't -- no. 3 Q. So during that meeting, you didn't review 4 any documents whatsoever? 5 A. I'm trying -- I don't recall, actually. 6 Q. Okay. That's fair enough. Outside of 7 that meeting, have you spoken with anyone else 8 about your deposition? 9 A. No. Just Mr. Falkof. 10 Q. Have you, on your own, reviewed any 11 materials at all in preparation for your deposition 12 today? 13 A. Yes. 14 Q. What did you review? 15 A. Well, what I -- I would have to go back to 16 the report. 17 I reviewed the 44 items that were sent by 18 Mr. Falkof. And then, there's probably 20 more, 19 No. 45 through 60 something, that I reviewed to 20 prepare for the report that I wrote. 21 Q. Okay. So outside of preparing the report, 22 when you're actually preparing yourself to give 23 your deposition today, you reviewed the documents 1 24 through 44 that are listed in your report?</p>

<p style="text-align: right;">Page 42</p> <p>1 A. Yes.</p> <p>2 Q. Okay. Have you talked to anybody else,</p> <p>3 other than Mr. Falkof or Mr. Sanford, his</p> <p>4 associate, about your engagement as an expert in</p> <p>5 this matter?</p> <p>6 A. No.</p> <p>7 Q. What about --</p> <p>8 A. My wife knows that I'm engaged but --</p> <p>9 Q. Our wives know all.</p> <p>10 A. We've kept --</p> <p>11 MR. FALKOF: You're learning quickly, Frank.</p> <p>12 THE WITNESS: I knew I -- I figured I was going</p> <p>13 to be asked this question. I wanted to be able to</p> <p>14 state it honestly. So she has been kept at arms'</p> <p>15 length.</p> <p>16 BY MR. BARTELA:</p> <p>17 Q. Have you talked to anybody else about the</p> <p>18 report that you prepared in this case?</p> <p>19 A. No.</p> <p>20 Q. Did you talk to anybody from Applica or</p> <p>21 that was formerly employed by Applica in the</p> <p>22 lead-up to filing your report in this matter?</p> <p>23 A. I did. I had a telephone conversation</p> <p>24 with Les Campbell.</p>	<p style="text-align: right;">Page 44</p> <p>1 branded ultrasonic pest repellers at issue in this</p> <p>2 case?</p> <p>3 A. He referred to what's called the</p> <p>4 correlation report. And I had some questions for</p> <p>5 him on that.</p> <p>6 And then, some general questions on</p> <p>7 kilohertz, decibels, sound pressure levels, SPLs.</p> <p>8 I'm not an electrical engineer. So --</p> <p>9 Q. So you were unfamiliar with these</p> <p>10 technical aspects of the ultrasonic pest repeller,</p> <p>11 because you never done any work with them --</p> <p>12 A. Correct.</p> <p>13 Q. -- is that right?</p> <p>14 A. Correct.</p> <p>15 Q. And so you asked Mr. Campbell some</p> <p>16 questions about the technical aspects of the</p> <p>17 ultrasonic pest repellers, is that fair?</p> <p>18 A. Correct.</p> <p>19 Q. And he gave you his knowledge during the</p> <p>20 conversation?</p> <p>21 A. Yes.</p> <p>22 Q. And he didn't point you to any reference</p> <p>23 materials that you could use to educate yourself?</p> <p>24 A. No. We just spoke -- just spoke. Just</p>
<p style="text-align: right;">Page 43</p> <p>1 Q. Okay. When was that?</p> <p>2 A. I could find the exact date but --</p> <p>3 Q. Just to the best of your memory.</p> <p>4 A. It was December sometime.</p> <p>5 Q. About how long did you talk to</p> <p>6 Mr. Campbell?</p> <p>7 A. It was probably a 30-minute conversation.</p> <p>8 Q. Did you have questions for Mr. Campbell --</p> <p>9 A. Yes.</p> <p>10 Q. -- based on his deposition testimony?</p> <p>11 A. Based on -- not so much his deposition but</p> <p>12 his knowledge about the physics of the -- of an</p> <p>13 ultrasonic pest repeller.</p> <p>14 Q. Was anyone else on the call?</p> <p>15 A. No, not that I'm aware of.</p> <p>16 Q. Did Mr. Campbell supply you any</p> <p>17 information that's not included in your expert</p> <p>18 report during that call?</p> <p>19 A. No.</p> <p>20 Q. Did he point you in the direction of any</p> <p>21 materials that might be publicly available?</p> <p>22 A. No.</p> <p>23 Q. Did he give you any information about the</p> <p>24 research and development of the Black & Decker</p>	<p style="text-align: right;">Page 45</p> <p>1 conversation.</p> <p>2 Q. Did you go back and double-check anything</p> <p>3 that he told you about the technical aspects of the</p> <p>4 ultrasonic pest repeller?</p> <p>5 A. I guess you could say in pre -- I don't</p> <p>6 know which came first, whether he -- he didn't lead</p> <p>7 me to anything specific, but I did go on line, as</p> <p>8 you'll see in some of the references cited, to</p> <p>9 familiarize myself with kilohertz and decibels and</p> <p>10 these measurements that I was unaware of.</p> <p>11 Q. Yeah. If we look at --</p> <p>12 A. So I don't think you'd say check up on</p> <p>13 him. It was just, you know, something I would do</p> <p>14 naturally.</p> <p>15 Q. If we look at your report, which is --</p> <p>16 within Borth 1, it's listed as doc 97-1 at the top.</p> <p>17 If you look to Page 2 of 19, that's where</p> <p>18 this numbered list of references lives, right, that</p> <p>19 we've kind of referenced a few times today?</p> <p>20 A. Yes. Correct.</p> <p>21 Q. And here, we see there's a chart. It's</p> <p>22 labeled 1 through 64, is that right?</p> <p>23 A. Yes. Yes.</p> <p>24 Q. Okay. So you mentioned that after you</p>

<p style="text-align: right;">Page 46</p> <p>1 talked to Mr. Campbell, you went on line, found 2 some materials about ultrasonic waves, kilohertz, 3 decibel levels, things like that, right? 4 A. Yes. 5 Q. Can you point to the -- in your reference 6 chart here to exactly the materials you're talking 7 about? 8 A. No. 62 and 63, it looks like, are the most 9 obvious. 10 Q. Okay. So No. 62 appears to be an on-line 11 article that's labeled Physics of Light and Sound 12 For Kids -- 13 A. Yes. 14 Q. -- is that right? 15 A. Yes. 16 Q. And what is -- it comes from a website 17 called boogeylights.com. What is boogeylights.com? 18 A. I have no idea. 19 Q. Okay. Was -- do you know if this material 20 is in any way peer-reviewed? 21 A. No. I have no way of knowing. 22 Q. Okay. And then, the next document you 23 point to is No. 63 -- 24 A. Uh-huh.</p>	<p style="text-align: right;">Page 48</p> <p>1 ultrasonic waves work -- 2 A. No. 3 Q. -- or how the decibel level of an 4 ultrasonic wave might affect the ultrasonic wave? 5 A. No. 6 Q. Did you consult any other reference 7 materials at all generally about the application of 8 ultrasonic waves in consumer electronics? 9 A. No. 10 Q. Did you review any peer-reviewed studies 11 published in scientific journals that discussed the 12 operation of ultrasonic waves or devices that 13 output ultrasonic waves? 14 MR. FALKOF: I'm going to object to the 15 question. Are you saying other than what he has 16 provided you with here? 17 BY MR. BARTELA: 18 Q. Do you understand my question? 19 A. I was going to try to qualify it, as well. 20 I don't know whether that's what he's trying to do 21 but -- 22 Q. Well, I'll take another stab at it. 23 You've pointed to No. 62 and No. 63, right? 24 A. Right.</p>
<p style="text-align: right;">Page 47</p> <p>1 Q. -- which is labeled What is a Decibel and 2 How is it Measured, is that correct? 3 A. That's correct. 4 Q. Okay. And that's taken from a website 5 called howstuffworks.com, is that correct? 6 A. Correct. 7 Q. Do you frequent howstuffworks.com? 8 A. No. 9 Q. Do you listen to the How Stuff Works 10 podcast? 11 A. No. 12 MR. FALKOF: Is there one? 13 MR. BARTEL: Yeah. Can we go off the record? 14 (Discussion off the record.) 15 BY MR. BARTELA: 16 Q. Do you know if the How Stuff Works article 17 is peer-reviewed in any way? 18 A. I do not. 19 Q. Did you -- outside of these two materials, 20 No. 62 and 63 -- which are articles published on 21 websites, is that fair? 22 A. Yes. 23 Q. Okay. Did you consult any other reference 24 materials about the technical aspects of how</p>	<p style="text-align: right;">Page 49</p> <p>1 Q. And we've agreed that these are articles 2 published on websites, right? 3 A. Yes. 4 Q. And generally, these articles, they 5 discuss how sound waves work -- 6 A. Yes. 7 Q. -- is that fair? 8 A. Yes. 9 Q. In fact, the one -- No. 63 is labeled What 10 is a Decibel and How is it Measured? 11 A. Uh-huh. Yes. 12 Q. And you understand that from the 13 ultrasonic pest repellers at issue in this case, 14 there is a kilohertz frequency output, is that 15 right? 16 A. Yes. 17 Q. And there can be also be a decibel level 18 that corresponds to that, is that right? 19 A. Two different measurements, yes. 20 Q. Okay. And outside of Nos. 62 and 63, did 21 you consult any other reference materials at all 22 that discuss the operation of sound waves or 23 ultrasonic waves or frequency kilohertz outputs or 24 decibel levels, whether they're listed in this</p>

<p style="text-align: right;">Page 50</p> <p>1 chart or not?</p> <p>2 A. The qualifier I would add is this. I did</p> <p>3 not consult any other electrically or physics --</p> <p>4 physics-based journals, peer-reviewed journals, or</p> <p>5 anything about ultrasonics.</p> <p>6 What I did consult or look at is what's</p> <p>7 listed here. When the entomologists were studying</p> <p>8 and publishing their reports on -- in peer-reviewed</p> <p>9 journals, they often specified kilohertz, sound</p> <p>10 pressure levels, decibels. And so I gained a --</p> <p>11 you know, knowledge from reading those.</p> <p>12 Q. Okay. And in those articles, the</p> <p>13 researchers would often -- correct me if I'm wrong</p> <p>14 but would often recount the kilohertz output, the</p> <p>15 decibel level of the devices that they were</p> <p>16 testing, is that fair?</p> <p>17 A. Sometimes. I mean, they all had different</p> <p>18 ways of reporting it, but yes.</p> <p>19 Q. Can we agree that the kilohertz frequency</p> <p>20 output and the decibel level, they mean something,</p> <p>21 is that fair?</p> <p>22 A. Yes, they do.</p> <p>23 Q. And they would tell somebody who's</p> <p>24 educated in sound waves some type of information</p>	<p style="text-align: right;">Page 52</p> <p>1 December, it was just you and Mr. Campbell on that</p> <p>2 conversation?</p> <p>3 A. Yes.</p> <p>4 Q. Was it a conference call?</p> <p>5 A. No. It was a -- just I dialed his number</p> <p>6 and --</p> <p>7 Q. Old-fashioned phone call?</p> <p>8 A. -- talked to him, yes.</p> <p>9 Q. You said you had questions about the</p> <p>10 correlation report. And we're going to get to the</p> <p>11 correlation report.</p> <p>12 Can you tell me briefly, though, what</p> <p>13 types of questions you had for Mr. Campbell?</p> <p>14 A. I asked him to -- well, this was the first</p> <p>15 con -- it was the only conversation I had with him,</p> <p>16 but I asked him basic questions on kilohertz. I</p> <p>17 think it's called sound -- voltage magnitude. I</p> <p>18 believe I asked him to explain that to me.</p> <p>19 I asked him to -- if he could explain some</p> <p>20 of the construction of the tables that are in there</p> <p>21 in that report. That's basically it.</p> <p>22 Q. Would you have recorded any notes from</p> <p>23 this conversation in your notes for this case?</p> <p>24 A. Yes.</p>
<p style="text-align: right;">Page 51</p> <p>1 about the sound wave that's being pushed out of a</p> <p>2 device --</p> <p>3 A. Yes.</p> <p>4 Q. -- is that fair?</p> <p>5 A. Yes.</p> <p>6 Q. And these scientific papers that you've</p> <p>7 referenced where the researchers are testing the</p> <p>8 efficacy of ultrasonic devices, they don't</p> <p>9 necessarily explain what a kilohertz means or what</p> <p>10 a decibel levels means --</p> <p>11 A. No.</p> <p>12 Q. -- do they?</p> <p>13 A. No, they don't.</p> <p>14 Q. And so to gain an understanding of what a</p> <p>15 kilohertz would mean or kilohertz output or what a</p> <p>16 decibel level would mean, you consulted No. 62 and</p> <p>17 No. 63, correct?</p> <p>18 A. That's correct.</p> <p>19 Q. Did you consult anything else other than</p> <p>20 those two?</p> <p>21 A. Just the conversation with Les Campbell.</p> <p>22 Q. Okay. I just want to make sure -- I think</p> <p>23 you already told me this.</p> <p>24 Your conversation with Les Campbell in</p>	<p style="text-align: right;">Page 53</p> <p>1 Q. And those were provided today?</p> <p>2 A. Yes.</p> <p>3 Q. Okay. Fair. You said you asked him a</p> <p>4 question about voltage magnitude.</p> <p>5 A. Yes.</p> <p>6 Q. Can you remember what he told you?</p> <p>7 A. Well, I really -- I can, if I have that</p> <p>8 term right. I'd have to look at the correlation</p> <p>9 report, but let's assume that one of the columns is</p> <p>10 voltage magnitude.</p> <p>11 As I under -- as I remember it, he</p> <p>12 explained that as the energy that was on the input</p> <p>13 side of a speaker, okay?</p> <p>14 Q. Okay.</p> <p>15 A. And so in that column, I know there's 5-7,</p> <p>16 all the -- you know, a lot of -- 5-7 is most</p> <p>17 common. And he described that column to mean</p> <p>18 the -- I guess voltage, okay, that's going into the</p> <p>19 speaker.</p> <p>20 Q. Okay. And prior to your conversation with</p> <p>21 Mr. Campbell, specifically when you're talking</p> <p>22 about voltage magnitude, did you have any</p> <p>23 experience with what voltage magnitude meant?</p> <p>24 A. Not at all.</p>

<p style="text-align: right;">Page 54</p> <p>1 Q. Do you have any experience from a 2 scientific standpoint of dealing with speakers? 3 A. No. 4 Q. Okay. From a non-scientific standpoint, 5 any specialized knowledge about speakers? 6 A. No. I wish I did, but I don't. 7 Q. Okay. You said Mr. Campbell also 8 explained to you what kilohertz were? 9 A. Yes. 10 Q. Okay. And what do you remember he told 11 you? 12 A. Kilohertz is a measure of the frequency of 13 a sound wave. And the greater the number, the 14 greater the kilohertz, the -- the shorter the 15 frequency, the more -- I'll call it in terms of 16 pitch. He also used the word pitch or tone. 17 When you have a very high kilohertz, you 18 have a very high pitch. If it's very low 19 kilohertz, it's very low. So that's my 20 understanding. 21 Q. Okay. And prior to your conversation with 22 Mr. Campbell, did you have any technical or 23 scientific knowledge about kilohertz? 24 A. No.</p>	<p style="text-align: right;">Page 56</p> <p>1 how far an ultrasonic wave would travel from the 2 machines at issue in this case? 3 A. No. 4 Q. Okay. Did you talk to him at all about 5 whether or not the, for instance, decibel level 6 would decrease over distance? 7 A. Not specifically. I think we both 8 understood that to be true. 9 Q. Did you do any research on that issue? 10 A. Only what I picked up from these couple of 11 sites here that would say the farther you are from 12 the origin, the less -- the lower the volume, the 13 lower -- the decibels drop off as you go farther 14 and farther from the speaker. 15 Q. When you say -- 16 A. It's just general knowledge. 17 Q. I violated the second rule already. I 18 didn't mean to cut you off there. 19 When you say these materials, are you 20 talking about No. 62 and 63? 21 A. 62 and 63, yes. 22 Q. Specific to the pest repellers at issue in 23 this case, which are the Stanley Black & Decker 24 branded devices, did you talk to Mr. Campbell at</p>
<p style="text-align: right;">Page 55</p> <p>1 Q. Had you -- before talking to Mr. Campbell, 2 had you done any research on kilohertz? 3 A. No. 4 Q. There's -- did you talk to Mr. Campbell 5 about the decibel level of an ultrasonic pest 6 repeller? 7 A. Yes. 8 Q. Okay. And what did he tell you, if you 9 remember? 10 A. Well, he told me that this voltage 11 magnitude was directly related to the decibels, the 12 loudness. He -- you know, a one-word description 13 of what decibel means, how loud something is. 14 And the voltage magnitude going into the 15 speaker is associated with the decibels that come 16 out of the speaker. 17 Q. Okay. Before your conversation with 18 Mr. Campbell about decibel levels, did you have any 19 technical or scientific knowledge about decibel 20 levels? 21 A. No. 22 Q. Did you do any research about it? 23 A. No. 24 Q. Did you talk to Mr. Campbell at all about</p>	<p style="text-align: right;">Page 57</p> <p>1 all about the distance in which the waves would 2 travel from those machines? 3 A. Not specifically. Again, it was just 4 general. 5 Q. Okay. After you talked to Mr. Campbell -- 6 did you just have that one phone call with him? 7 A. Yes. There was a follow-up e-mail. And I 8 cannot remember what the subject was, but there was 9 a follow -- to the lab rate on -- not a lab rate 10 but to further explain something but -- 11 Q. Did he send the e-mail to you? 12 A. No. I sent it to him to ask a question. 13 Q. Okay. So you had some questions for him? 14 A. Okay. That -- yeah, I do remember now. 15 That was a question that asked -- I gave you the 16 answer already, but it asked is the voltage 17 magnitude directly associated with the -- is it -- 18 the input and the decibels that come out, are they 19 related. And his answer was yes. 20 Q. Okay. So there was just one e-mail. Did 21 you ask any other questions in that e-mail? 22 A. No, just that one, simple one. 23 Q. Was his answer specific to the question 24 that you asked?</p>

<p style="text-align: right;">Page 58</p> <p>1 A. Yes.</p> <p>2 Q. Did it include any other information?</p> <p>3 A. I think it was a one-word answer, yes.</p> <p>4 Q. Okay. Have you talked to a man by the</p> <p>5 name of Pete Meister at all?</p> <p>6 A. No.</p> <p>7 Q. Okay. Have you talked to a man by the</p> <p>8 name of Aurelio Reyes at all?</p> <p>9 A. No.</p> <p>10 Q. How about a man named Stuart Slugh?</p> <p>11 A. No.</p> <p>12 MR. FALKOF: Slugh is S-l-u-g-h.</p> <p>13 BY MR. BARTELA:</p> <p>14 Q. After your call with Mr. Campbell, did you</p> <p>15 report that call to anybody? Like did you</p> <p>16 report --</p> <p>17 A. Yes.</p> <p>18 Q. -- what you learned from that call to</p> <p>19 anyone?</p> <p>20 A. Not really. I informed Mr. Falkof that we</p> <p>21 did talk, but I didn't go into the subject matter.</p> <p>22 Q. Okay. Do you know if Mr. Campbell</p> <p>23 reviewed your report that we find here marked as</p> <p>24 97-1 within Borth 1?</p>	<p style="text-align: right;">Page 60</p> <p>1 A. Uh-huh.</p> <p>2 Q. What is that?</p> <p>3 A. Well, first, to be clear, this did come</p> <p>4 from Mr. Falkof, but it was not in the original set</p> <p>5 of documents that he sent me. So he sent it</p> <p>6 afterwards.</p> <p>7 Q. Okay. So we're clear, at first, you were</p> <p>8 sent Items 1 through 44?</p> <p>9 A. That's what I got in the six-pound</p> <p>10 package, yes.</p> <p>11 Q. And then, at a later point, you were</p> <p>12 provided some other materials.</p> <p>13 Could you tell me by referring to the</p> <p>14 numbers --</p> <p>15 A. Okay.</p> <p>16 Q. -- in the chart what materials those were?</p> <p>17 A. Okay. Mr. Falkof sent No. 47, which is</p> <p>18 the one you just talked about and -- well, then, we</p> <p>19 go down to 59, plaintiff's expert witness report,</p> <p>20 and 60, deposition of Dr. Roger Gold.</p> <p>21 And all the ones that I did not mention</p> <p>22 were found by me and not sent by Mr. Falkof.</p> <p>23 Q. Could you tell me what No. 47 is?</p> <p>24 A. Yes. A product specification sheet -- and</p>
<p style="text-align: right;">Page 59</p> <p>1 A. I do not know.</p> <p>2 MR. FALKOF: Frank, I'll put your mind at ease.</p> <p>3 It has not been shared with anyone.</p> <p>4 MR. BARTELA: Can we go off the record?</p> <p>5 (Discussion off the record.)</p> <p>6 BY MR. BARTELA:</p> <p>7 Q. Okay. So we were talking about your</p> <p>8 discussion with Mr. Campbell. I want to follow up</p> <p>9 just on a few points real quick.</p> <p>10 You said that in the beginning of this</p> <p>11 case, you were supplied with a number of materials</p> <p>12 from Mr. Falkof --</p> <p>13 A. Yes.</p> <p>14 Q. -- right? And those are 1 through 44 or</p> <p>15 45 in your report?</p> <p>16 A. No, 44.</p> <p>17 Q. 44? Okay. Looking at No. 47, it is an</p> <p>18 entry labeled Refresh ultrasonic pest repeller</p> <p>19 product specification.</p> <p>20 A. Yeah.</p> <p>21 Q. And it looks like it's by a man named</p> <p>22 Aurelio Reyes.</p> <p>23 A. Yes.</p> <p>24 Q. And a person named Chung Waiman.</p>	<p style="text-align: right;">Page 61</p> <p>1 I'm not a manufacturer, but I have knowledge of</p> <p>2 them from my work with Dow AgroSciences are the</p> <p>3 technical specifics that a manufacturer would --</p> <p>4 that a -- well, I'm going to talk about two</p> <p>5 manufacturers.</p> <p>6 That an owner of a technology would give</p> <p>7 to a manufacturer, who might be a mass producer of</p> <p>8 these things to follow.</p> <p>9 And it has, you know -- in this case,</p> <p>10 there's several pages of specific requirements that</p> <p>11 Applica, I guess, is asking of their manufacturer</p> <p>12 of their product to adhere to.</p> <p>13 Q. So this wouldn't obv -- obviously, this</p> <p>14 wouldn't be an item that would be given to the</p> <p>15 consumer, correct?</p> <p>16 A. I don't believe so.</p> <p>17 Q. Okay. This would be some type of</p> <p>18 technical document that would be sent to the plant</p> <p>19 that's actually manufacturing --</p> <p>20 A. Yes.</p> <p>21 Q. -- the devices?</p> <p>22 A. That's how I understand it, yes.</p> <p>23 MR. BARTELA: Brad, was this given to us in</p> <p>24 discovery?</p>

<p style="text-align: right;">Page 62</p> <p>1 MR. FALKOF: Yeah.</p> <p>2 MR. BARTELA: Okay. I just wanted to make</p> <p>3 sure.</p> <p>4 MR. FALKOF: Yeah. I think we generally call</p> <p>5 it the product specification sheet. I didn't</p> <p>6 realize who had written it or anything like that.</p> <p>7 BY MR. BARTELA:</p> <p>8 Q. Did you talk to Mr. Campbell at all about</p> <p>9 this product specification sheet?</p> <p>10 A. No.</p> <p>11 Q. Did you talk to Mr. Campbell at all about</p> <p>12 any changes that were made to the design of the</p> <p>13 device?</p> <p>14 A. No.</p> <p>15 Q. Okay. Is there any information that you</p> <p>16 requested from Mr. Falkof or from any attorney at</p> <p>17 his firm that you weren't given?</p> <p>18 A. No.</p> <p>19 Q. Okay. So there's nothing you wanted to</p> <p>20 look at?</p> <p>21 MR. FALKOF: Hang on. What about the one --</p> <p>22 what about No. 36?</p> <p>23 THE WITNESS: Okay. Yes. Well, I did request</p> <p>24 that. I just -- I don't know whether he was</p>	<p style="text-align: right;">Page 64</p> <p>1 depositions of Peter Meister, Stuart Slugh,</p> <p>2 Aurelio Reyes, and Leslie Campbell from Applica, is</p> <p>3 that correct?</p> <p>4 A. Yes. Yes.</p> <p>5 Q. And you also read the deposition of the</p> <p>6 plaintiff, Mrs. Deborah Galoski?</p> <p>7 A. Yes.</p> <p>8 Q. And also of our expert, Dr. Roger Gold?</p> <p>9 A. Yes.</p> <p>10 Q. Okay. And did you take handwritten notes</p> <p>11 on those depositions?</p> <p>12 A. Yes.</p> <p>13 Q. Are those included in that packet?</p> <p>14 A. Yes.</p> <p>15 Q. The company we talked about earlier called</p> <p>16 GLG Research, you -- is that essentially like an</p> <p>17 advertisement for you as an expert witness?</p> <p>18 A. It hasn't been to this point. And I don't</p> <p>19 think I would use that -- I guess -- no. No.</p> <p>20 Q. Do you use any type of advertising for</p> <p>21 your services as an expert witness?</p> <p>22 A. Not yet.</p> <p>23 Q. Do you have plans to?</p> <p>24 A. Well, I should -- I have an</p>
<p style="text-align: right;">Page 63</p> <p>1 responsible for not sending it or your firm, I</p> <p>2 don't know, but No. 36 was referenced in Dr. Gold's</p> <p>3 report, I believe.</p> <p>4 And since it was referenced there, I</p> <p>5 wanted to have a copy of it. And he sent several</p> <p>6 things, but that was not among them or you sent</p> <p>7 them. I don't know who sent them.</p> <p>8 BY MR. BARTELA:</p> <p>9 Q. Did you do an independent --</p> <p>10 A. I tried.</p> <p>11 Q. -- search for them?</p> <p>12 A. Yeah. I couldn't find it, yeah. Well,</p> <p>13 it's a -- what I know that to be -- if the citation</p> <p>14 is correct from Dr. Gold, Pest Control is a trade</p> <p>15 magazine that would not have been a refereed</p> <p>16 journal article.</p> <p>17 Q. So other than No. 36, there are no</p> <p>18 materials --</p> <p>19 A. No.</p> <p>20 Q. -- you requested --</p> <p>21 A. No.</p> <p>22 Q. -- that you weren't given?</p> <p>23 A. No.</p> <p>24 Q. Okay. It looks here like you read the</p>	<p style="text-align: right;">Page 65</p> <p>1 under-construction website, but nobody's directed</p> <p>2 to it. So I don't think anybody's looking at it.</p> <p>3 Q. So do you use any other -- I may have</p> <p>4 asked this already.</p> <p>5 Do you use any other firms, other than</p> <p>6 GLG Consulting, to get the word out about your</p> <p>7 expert services?</p> <p>8 A. No.</p> <p>9 Q. Do you go to any legal conventions or</p> <p>10 symposiums to try to meet attorneys?</p> <p>11 A. I have not.</p> <p>12 Q. Let's take a look here again at your</p> <p>13 report, Dr. Borth.</p> <p>14 A. Okay.</p> <p>15 Q. And this report, this was prepared by you?</p> <p>16 A. Yes.</p> <p>17 Q. Is there anything anyone told you not to</p> <p>18 include in your report?</p> <p>19 A. No.</p> <p>20 Q. Were you told what to include in your</p> <p>21 report?</p> <p>22 A. Only to the extent that the engagement --</p> <p>23 the reason that I was hired -- I mean, it had some</p> <p>24 objectives. And so in kind of broad --</p>

<p style="text-align: right;">Page 66</p> <p>1 Q. Do you remember what they were?</p> <p>2 A. Yeah. There are three. First -- and this</p> <p>3 may be out of order, but the first was -- one of</p> <p>4 them, I should say, was to assess the studies that</p> <p>5 Applica had at their disposal to base their claims</p> <p>6 on for the ultrasonic pest repeller.</p> <p>7 The second was to review and critique</p> <p>8 Dr. Gold's report and his deposition.</p> <p>9 And the third was to review Ms. Galoski's</p> <p>10 deposition to determine whether she followed the</p> <p>11 use directions that were contained with the</p> <p>12 package.</p> <p>13 Q. So that was a specific direction, not just</p> <p>14 review Ms. Galoski's testimony but review it with</p> <p>15 the focus of being did she comply with the product</p> <p>16 use manual?</p> <p>17 A. Those are my words, but yes.</p> <p>18 Q. Once you got started on this quest, did</p> <p>19 you come up with any ideas for maybe other things</p> <p>20 you should look at, other topics you should</p> <p>21 consider?</p> <p>22 A. No.</p> <p>23 Q. Okay. These three topics that you just</p> <p>24 kind of went through for us, were those given to</p>	<p style="text-align: right;">Page 68</p> <p>1 cited. Okay. I wanted to make sure -- I</p> <p>2 anticipated you asking me what a board certified</p> <p>3 entomologist was. So I have -- reviewed that to</p> <p>4 make sure.</p> <p>5 There is some -- there's -- I don't know</p> <p>6 what you call this. Something from</p> <p>7 Jeanne Steigerwald. There's a Jeffrey Brown</p> <p>8 deposition that was not included. There's a</p> <p>9 journal article that I read but didn't think it was</p> <p>10 useful.</p> <p>11 Q. What was the name of that journal article?</p> <p>12 A. Effective -- it was written by Ballard and</p> <p>13 Gold. That's why I pulled it up. Effectiveness of</p> <p>14 Six Insecticide Treatment Strategies in the</p> <p>15 Reduction of German Cockroach Populations in</p> <p>16 Infested Apartments. A long title, but it</p> <p>17 didn't -- you know, it didn't seem to have any</p> <p>18 value.</p> <p>19 Q. Did it discuss ultrasonic pest repellers</p> <p>20 at all?</p> <p>21 A. No. No. Here's something not used. I</p> <p>22 found FTC Alleges Electronic Mosquito Repellent</p> <p>23 Claims Are False. We're not talking mosquitos</p> <p>24 here. We're not talking, you know, electronic. So</p>
<p style="text-align: right;">Page 67</p> <p>1 you up front when you first spoke with Mr. Falkof?</p> <p>2 A. I don't recall. It wasn't in the first</p> <p>3 conversation, the -- what I call the vetting</p> <p>4 conversation but sometime thereafter.</p> <p>5 Q. Okay. Fair to say sometime after you were</p> <p>6 actually engaged as an expert here?</p> <p>7 A. Yes.</p> <p>8 Q. And were you given these objectives before</p> <p>9 you received any of the actual information that you</p> <p>10 reviewed?</p> <p>11 A. I don't recall the order.</p> <p>12 Q. Okay. After you spoke with Mr. Falkof and</p> <p>13 then became engaged as an expert in this matter,</p> <p>14 did you do any type of literature review to get</p> <p>15 yourself acclimated with ultrasonic pest repellers?</p> <p>16 A. Everything that I reviewed is here. It</p> <p>17 was either cited or not cited.</p> <p>18 And I have a -- I think you asked me to</p> <p>19 bring that, you know, things that I reviewed but</p> <p>20 weren't included in the report. And I have that</p> <p>21 stuff, if you want to see it.</p> <p>22 Q. Yeah. What did you review but not include</p> <p>23 in the report?</p> <p>24 A. Well, there were some -- reviewed but not</p>	<p style="text-align: right;">Page 69</p> <p>1 I didn't use that.</p> <p>2 Kind of Wikipedia-type references on what</p> <p>3 is inductive reasoning and deductive reasoning as</p> <p>4 we might get to hypothesis testing, what an</p> <p>5 armchair scientist is, some backup references on</p> <p>6 scientific method. That's it.</p> <p>7 Q. Can I look at those?</p> <p>8 A. Sure.</p> <p>9 Q. The materials specific to Jean Steigerwald</p> <p>10 and Bell & Howell, did you find these on your own?</p> <p>11 A. No.</p> <p>12 Q. Okay. These were given to you by counsel?</p> <p>13 A. Yes.</p> <p>14 Q. Were you given any specific directions</p> <p>15 when you were reviewing these?</p> <p>16 A. No, not at all. It was just -- I would</p> <p>17 say -- I'd call it supplementary, just extra</p> <p>18 information.</p> <p>19 Q. When you spoke with Mr. Campbell, which we</p> <p>20 talked about a minute ago, did you talk at all</p> <p>21 about the FTC warning from 2001?</p> <p>22 A. No.</p> <p>23 Q. Were you aware of that warning?</p> <p>24 A. Only after I started digging into the</p>

<p style="text-align: right;">Page 70</p> <p>1 case.</p> <p>2 Q. Were you aware that, in general, in your</p> <p>3 career with Dow that the FTC would investigate</p> <p>4 claims about products sold to consumers?</p> <p>5 A. Yes.</p> <p>6 Q. The FTC -- and I don't want you to give me</p> <p>7 any detail or anything that would be privileged,</p> <p>8 but did the FTC do any investigations of products</p> <p>9 you worked on at Dow?</p> <p>10 A. No.</p> <p>11 Q. Okay.</p> <p>12 A. No. I mean, if they did, I wasn't aware</p> <p>13 of it.</p> <p>14 Q. Do you have any experience with how the</p> <p>15 FTC would investigate a product?</p> <p>16 A. Not at all.</p> <p>17 Q. Did you do any investigation into how an</p> <p>18 FTC investigation might work?</p> <p>19 A. Just what I picked up from reading</p> <p>20 their -- you know, their warning or whatever that</p> <p>21 is and what Dr. Gold had to say about it in his</p> <p>22 deposition. Nothing outside of that.</p> <p>23 Q. There is something I have a question</p> <p>24 about.</p>	<p style="text-align: right;">Page 72</p> <p>1 document that contains an e-mail from Dr. Borth to</p> <p>2 Les Campbell and a response from Les Campbell.</p> <p>3 In your e-mail here, you're discussing a</p> <p>4 question you have about how the voltage magnitude</p> <p>5 is related to the decibel level --</p> <p>6 A. Okay.</p> <p>7 Q. -- that comes from the machine. That's</p> <p>8 how I'm interpreting it.</p> <p>9 So you can review it and let me know if</p> <p>10 I'm wrong, but I want to make sure I understand it.</p> <p>11 A. Yeah. Okay. What was your question? I</p> <p>12 forgot.</p> <p>13 Q. Okay. So you've reviewed this now?</p> <p>14 A. Yes.</p> <p>15 Q. My question is, am I understanding the</p> <p>16 scope of this e-mail that you sent to Mr. Campbell</p> <p>17 on January 4th to be that you were questioning how</p> <p>18 the voltage magnitude of the devices is related to</p> <p>19 the decibel output of the device?</p> <p>20 A. Correct.</p> <p>21 Q. And you had this question based on -- it</p> <p>22 looks like the correlation report and the outputs</p> <p>23 that are listed in the correlation report?</p> <p>24 A. Yes.</p>
<p style="text-align: right;">Page 71</p> <p>1 A. Okay.</p> <p>2 Q. I would like to mark this.</p> <p>3 MR. BARTELA: Can you mark this as 2 or</p> <p>4 whatever we're up to?</p> <p>5 (Whereupon, Borth Deposition</p> <p>6 Exhibit 2 was marked for</p> <p>7 identification.)</p> <p>8 BY MR. BARTELA:</p> <p>9 Q. So we have one copy of this from your</p> <p>10 notes -- or from the materials you brought with</p> <p>11 you, rather.</p> <p>12 And it is, I believe, the e-mail between</p> <p>13 you and Mr. Campbell that you spoke about a moment</p> <p>14 ago.</p> <p>15 A. Oh. Yeah.</p> <p>16 Q. So I've marked it as No. 2. What I'm</p> <p>17 trying to figure out here is, is this just a</p> <p>18 one-page document or is this page right behind it</p> <p>19 connected?</p> <p>20 A. No, they're not connected. This is the</p> <p>21 e-mail. And this was something that I pulled off</p> <p>22 the Internet and copied.</p> <p>23 Q. What I'd like to do is just let the record</p> <p>24 reflect that what's marked as Borth 2 is a one-page</p>	<p style="text-align: right;">Page 73</p> <p>1 Q. Okay. And this e-mail is after you had</p> <p>2 already spoken to Mr. Campbell?</p> <p>3 A. Yes. Yes.</p> <p>4 Q. And Mr. Campbell tells you the voltage to</p> <p>5 the speaker is directly proportional to the decibel</p> <p>6 level, is that correct?</p> <p>7 A. Yes. Previously, I said it was a one-word</p> <p>8 answer, but obviously, it was a sentence, but he</p> <p>9 just -- you know, he basically said yes.</p> <p>10 Q. And did this solve the dilemma you were</p> <p>11 having or the question that you had in your mind?</p> <p>12 A. Yes, it did.</p> <p>13 Q. Okay. Did you do any follow-up research,</p> <p>14 other than maybe looking at Documents No. 62 and 63</p> <p>15 from your report, about this specific question?</p> <p>16 A. No.</p> <p>17 Q. Okay. Did you ask anybody else about this</p> <p>18 question?</p> <p>19 A. No.</p> <p>20 Q. Did you consult anybody in the academic</p> <p>21 area that would study ultrasonic pest repellers?</p> <p>22 A. No.</p> <p>23 Q. Okay. That's all the questions I have.</p> <p>24 You can just hold onto that. The court reporter</p>

<p style="text-align: right;">Page 74</p> <p>1 will take that at the end of the day.</p> <p>2 A. I'll put it down here.</p> <p>3 Q. So to go back to my original question,</p> <p>4 which is, other than these materials that are</p> <p>5 listed in your report and the materials we just</p> <p>6 went through that you reviewed but didn't</p> <p>7 necessarily rely upon, did you do any type of</p> <p>8 academic literature review about ultrasonic pest</p> <p>9 repellers?</p> <p>10 A. No.</p> <p>11 Q. Do you know how to access on-line</p> <p>12 resources that would give you academic articles?</p> <p>13 A. I know the procedure. I'm not -- you</p> <p>14 know, you can't always get into them, but I know</p> <p>15 how to do it, yeah.</p> <p>16 Q. Is it something you would normally do in</p> <p>17 your experience with Dow, look at academic --</p> <p>18 A. Yes.</p> <p>19 Q. -- articles from time to time?</p> <p>20 A. Yes. Yes.</p> <p>21 Q. And so you didn't do any search through</p> <p>22 any academic journal aggregators to look for</p> <p>23 articles about ultrasonic pest repellers, using</p> <p>24 ultrasonic -- or using ultrasonic waves to repel</p>	<p style="text-align: right;">Page 76</p> <p>1 Q. And this, again, is a subject in which you</p> <p>2 don't have any real scientific or technical</p> <p>3 expertise prior to working on this case?</p> <p>4 MR. FALKOF: I'm going to object. When you say</p> <p>5 this subject, are you limiting it to ultrasonic</p> <p>6 pest repellers or are you talking about entomology</p> <p>7 generally?</p> <p>8 BY MR. BARTELA:</p> <p>9 Q. Okay. I'll ask -- Dr. Borth, did you</p> <p>10 understand my question?</p> <p>11 A. I would qualify it, you know.</p> <p>12 Q. Let me take another stab --</p> <p>13 A. Okay.</p> <p>14 Q. -- and I'll try to make it clearer. The</p> <p>15 subject of using ultrasonic waves to repel pests or</p> <p>16 rodents is a subject that before this case, you</p> <p>17 didn't have any technical or scientific expertise</p> <p>18 in, is that fair?</p> <p>19 A. That's fair. Correct.</p> <p>20 Q. Okay. And despite the fact that you</p> <p>21 didn't have any scientific or technical expertise</p> <p>22 in the subject of using ultrasonic waves to repel</p> <p>23 pests or rodents, despite that fact, you didn't do</p> <p>24 your own independent literature review of</p>
<p style="text-align: right;">Page 75</p> <p>1 pests or rodents?</p> <p>2 A. No. The only thing that I did was, as I</p> <p>3 said in the very beginning, a Google search, but</p> <p>4 that's not a -- you know, you're not going into any</p> <p>5 professional organization.</p> <p>6 Q. Did you ask anybody if you should do a</p> <p>7 literature review?</p> <p>8 A. Well, I guess literature review -- it</p> <p>9 depends on what you mean by literature review.</p> <p>10 There's, you know, background research,</p> <p>11 which is all the citations there. I would call</p> <p>12 that literature review. Going beyond what I did,</p> <p>13 no, I didn't ask anybody.</p> <p>14 Q. Okay. That's a fair distinction. What I</p> <p>15 meant was, when I'm talking about literature review</p> <p>16 in this context, I mean academic articles that have</p> <p>17 been written about the subject on which you're</p> <p>18 providing testimony, which would be ultrasonic</p> <p>19 waves to repel pests or rodents.</p> <p>20 And my question was -- just so we get it</p> <p>21 clear, my question was, did you ask anybody if you</p> <p>22 should do your own independent literature review of</p> <p>23 that subject?</p> <p>24 A. No.</p>	<p style="text-align: right;">Page 77</p> <p>1 peer-reviewed articles about that specific subject?</p> <p>2 A. No, other than what is included in the</p> <p>3 cited references.</p> <p>4 Q. Do you know who Dr. Subramanyam is?</p> <p>5 A. I do.</p> <p>6 Q. Okay. Do you know him on a personal</p> <p>7 level?</p> <p>8 A. A professional level in the past. I mean,</p> <p>9 years ago.</p> <p>10 Q. Okay. So have you worked with him before?</p> <p>11 A. Not directly. Let me explain. In one of</p> <p>12 the roles that I have with Dow AgroSciences, I told</p> <p>13 you, I was managing the people who were doing</p> <p>14 experiments with some of our products.</p> <p>15 One of the scientists who was doing those</p> <p>16 experiments worked with who we called Dr. Subi for</p> <p>17 short when he was -- and may still be at Kansas</p> <p>18 State. I don't know.</p> <p>19 So I know him through that association. I</p> <p>20 can't remember that I -- I've never visited his</p> <p>21 lab. I also attended a conference where he was</p> <p>22 also a speaker in Australia. And I think we went</p> <p>23 out to dinner.</p> <p>24 Q. About how long ago was that conference?</p>

<p style="text-align: right;">Page 78</p> <p>1 A. Let's say 10 years. It was when I was --</p> <p>2 if you look at the dates there, it was when I was</p> <p>3 managing that urban pest global group.</p> <p>4 Q. Okay. Do you remember if Dr. Subi's talk</p> <p>5 that you went to in Australia -- did it have</p> <p>6 anything to do with ultrasonic pest repellers?</p> <p>7 A. Actually, I didn't go to one of his talks.</p> <p>8 We were connected with this scientist, who I was</p> <p>9 managing. And I was the head guy and they wanted</p> <p>10 me to pay for dinner. So --</p> <p>11 MR. FALKOF: So they invited you.</p> <p>12 THE WITNESS: Yeah, they invited me.</p> <p>13 BY MR. BARTELA:</p> <p>14 Q. Okay. Have you ever done any research</p> <p>15 with Dr. Subramanyam about ultrasonic pest</p> <p>16 repellers?</p> <p>17 A. No, I have not.</p> <p>18 Q. Did -- at any point when you were</p> <p>19 reviewing these materials -- let's back up.</p> <p>20 We can agree that Dr. Subramanyam and some</p> <p>21 of his associates did some of the underlying</p> <p>22 research about the efficacy of the Black & Decker</p> <p>23 devices?</p> <p>24 A. That's what I read in the documents that</p>	<p style="text-align: right;">Page 80</p> <p>1 Q. Right, but you called Dr. -- you called</p> <p>2 Mr. Campbell when you had a question, right?</p> <p>3 A. Because I was not a -- I'm not a physicist</p> <p>4 or electrical engineer.</p> <p>5 I didn't even understand -- you know, I</p> <p>6 had to be certain what a kilohertz meant, what a</p> <p>7 decibel meant.</p> <p>8 I can read Dr. Subi's and his associate's</p> <p>9 report and pretty much understand, because it's</p> <p>10 insect-related. Not the physics part but the</p> <p>11 insect part and the methodology they used and so</p> <p>12 forth.</p> <p>13 Q. So you didn't have any questions about any</p> <p>14 of the tests that Dr. Subi had done?</p> <p>15 A. No.</p> <p>16 Q. Did you talk with any of the other</p> <p>17 researchers that had performed any of the</p> <p>18 underlying efficacy tests that were performed on</p> <p>19 the Weitech branded devices?</p> <p>20 A. No, I did not.</p> <p>21 Q. Do you know a man by the name of A. Daniel</p> <p>22 Ashton?</p> <p>23 A. No. Only that he wrote one of the reports</p> <p>24 or authored it, yeah.</p>
<p style="text-align: right;">Page 79</p> <p>1 were provided, yes.</p> <p>2 Q. Okay. And just so we're clear, they were</p> <p>3 testing the Weitech branded devices in their labs,</p> <p>4 is that fair?</p> <p>5 A. That's what I remember, yes.</p> <p>6 Q. And then, the Weitech branded devices were</p> <p>7 correlated to the technical specifications of the</p> <p>8 Black & Decker devices, which we see in the</p> <p>9 correlation report --</p> <p>10 A. Correct.</p> <p>11 Q. -- is that fair?</p> <p>12 A. Yes, that's fair.</p> <p>13 Q. So Dr. Subi and his associates are doing</p> <p>14 some of this underlying research.</p> <p>15 Did you contact him at all to ask him any</p> <p>16 questions about his research?</p> <p>17 A. No.</p> <p>18 Q. Did anyone tell you you couldn't contact</p> <p>19 him?</p> <p>20 A. No.</p> <p>21 Q. Okay. Why didn't you contact him?</p> <p>22 A. My engagement, as I understood it, was to</p> <p>23 review the written material that was produced. So</p> <p>24 that's what I did.</p>	<p style="text-align: right;">Page 81</p> <p>1 Q. Okay. And you didn't call him with any</p> <p>2 questions?</p> <p>3 A. No.</p> <p>4 Q. I think there was another scientist named</p> <p>5 Feng Wang Hung?</p> <p>6 A. No, I did not call. No contact.</p> <p>7 Q. When you were given this assignment --</p> <p>8 rather, when you were engaged to be an expert</p> <p>9 witness in this case, did you set out to conduct</p> <p>10 any of your own independent efficacy tests about</p> <p>11 the ultrasonic pest repellers at issue in this</p> <p>12 case?</p> <p>13 A. No.</p> <p>14 Q. That just wasn't part of the scope of your</p> <p>15 engagement, correct?</p> <p>16 A. Correct.</p> <p>17 Q. Did you ever ask to do that but were told</p> <p>18 no?</p> <p>19 A. No.</p> <p>20 Q. Did you physically review Mrs. Galoski's</p> <p>21 devices?</p> <p>22 A. I did -- I have what's called -- what</p> <p>23 legals call exemplars. I do not think they are her</p> <p>24 actual devices.</p>

<p style="text-align: right;">Page 82</p> <p>1 Q. So you have pictures?</p> <p>2 A. I have the actual -- well, these -- I've</p> <p>3 got the ultrasonic pest repellers themselves.</p> <p>4 Q. Okay. So they sent you physical pest</p> <p>5 repellers that are just -- they're not hers,</p> <p>6 they're just other --</p> <p>7 A. I believe they're others, yes.</p> <p>8 Q. Do you know if they correspond to the</p> <p>9 devices that she owned?</p> <p>10 A. Well, the -- if you go back to those model</p> <p>11 numbers, EW and -- the E -- various series of</p> <p>12 EWs -- and they're all -- they're within the model</p> <p>13 number.</p> <p>14 They're not the exact ones, but like</p> <p>15 the -- they call it in the spec sheets 100 to</p> <p>16 700 series, and then, beyond. They're within that</p> <p>17 series, but I don't think they're exactly hers.</p> <p>18 Q. And when you got these, what did you do</p> <p>19 with them?</p> <p>20 A. Well, I opened the package and I put them</p> <p>21 in a -- well, first, I read the use directions, use</p> <p>22 book. And I plugged each one of them in to see</p> <p>23 what happened.</p> <p>24 And a little red light came on in each one</p>	<p style="text-align: right;">Page 84</p> <p>1 measurements to see if there are ultrasonic waves</p> <p>2 coming off the device?</p> <p>3 A. No.</p> <p>4 Q. Do you have anyone you would call to do</p> <p>5 that work for you?</p> <p>6 A. I do not. I'd have to search.</p> <p>7 Q. I may have asked this, but did you ask</p> <p>8 anyone specifically if you could perform an</p> <p>9 efficacy study of the devices that are at issue in</p> <p>10 this case?</p> <p>11 A. I did not ask anyone.</p> <p>12 Q. I want to go through some of these</p> <p>13 materials that you've listed that you relied upon.</p> <p>14 So I think the easiest thing to do might be just to</p> <p>15 mark a few of them at once and we'll go through</p> <p>16 them.</p> <p>17 MR. BARTELA: So do you want to go off the</p> <p>18 record for a minute and I'll get these ready?</p> <p>19 (Discussion off the record.)</p> <p>20 (Whereupon, Borth Deposition</p> <p>21 Exhibit 3, Exhibit 4, Exhibit 5,</p> <p>22 and Exhibit 6 were marked for</p> <p>23 identification.)</p> <p>24</p>
<p style="text-align: right;">Page 83</p> <p>1 of them. One package of three, one package of two.</p> <p>2 A red light went on showing that it's working.</p> <p>3 Ultrasound is being produced, even though humans</p> <p>4 can't hear it.</p> <p>5 And then, in each one of the packages, I</p> <p>6 actually took it apart, just because I was curious</p> <p>7 to see what the inside of an ultrasonic pest</p> <p>8 repeller looked like.</p> <p>9 Q. What's it look like?</p> <p>10 A. Well, it's got a green circuit board that</p> <p>11 takes up most of the space. It's got a speaker</p> <p>12 that's, you know, in there.</p> <p>13 And -- I mean, it's electronic circuitry,</p> <p>14 I would say. A green circuit board takes up most</p> <p>15 of the space.</p> <p>16 Q. Did you do any measurements to see if any</p> <p>17 heat was put off of the device when it was plugged</p> <p>18 in?</p> <p>19 A. No.</p> <p>20 Q. Did you do any measurements to see if</p> <p>21 there were actually ultrasonic waves coming out of</p> <p>22 the device?</p> <p>23 A. No.</p> <p>24 Q. Do you have the capability to do any</p>	<p style="text-align: right;">Page 85</p> <p>1 BY MR. BARTELA:</p> <p>2 Q. Okay. Dr. Borth, we're going to mark a</p> <p>3 few different things here as exhibits for you to</p> <p>4 look at.</p> <p>5 A. Okay.</p> <p>6 Q. We're going to kind of ask you some</p> <p>7 questions about them, okay?</p> <p>8 A. Yes.</p> <p>9 Q. So I'm going to go through them now so the</p> <p>10 record is clear.</p> <p>11 What we're marking as Borth 3 is a copy of</p> <p>12 the correlation report. Have you seen this before?</p> <p>13 A. Yes.</p> <p>14 Q. Okay. And this is one of the documents</p> <p>15 that's listed in your references relied upon</p> <p>16 section, correct?</p> <p>17 A. Correct.</p> <p>18 Q. Okay. What we've marked as Borth</p> <p>19 Exhibit 4 is a PowerPoint presentation. And it's</p> <p>20 labeled Response of Several Arthropod Species to</p> <p>21 Three Ultrasonic Devices from Weitech, Inc.</p> <p>22 Can -- have you ever seen this before?</p> <p>23 A. I've seen it, yes.</p> <p>24 Q. And that, again, is one of the materials</p>

<p style="text-align: right;">Page 86</p> <p>1 listed in your references relied upon?</p> <p>2 A. Yes.</p> <p>3 Q. Okay.</p> <p>4 A. Well, yes. I'll qualify that later, if we</p> <p>5 get into it.</p> <p>6 Q. We'll have some questions about it, yes.</p> <p>7 A. Okay.</p> <p>8 Q. What we've marked as Borth 5 is a</p> <p>9 PowerPoint that's labeled Ultrasound and Anthropod</p> <p>10 Pest Control, Hearing is Believing.</p> <p>11 And it looks to be authored by</p> <p>12 Dr. Subramanyam, who we earlier referred to as</p> <p>13 Dr. Subi.</p> <p>14 A. Correct.</p> <p>15 Q. And have you seen this before?</p> <p>16 A. Yes.</p> <p>17 Q. Again, this is listed in your report as</p> <p>18 references relied upon.</p> <p>19 Okay. And for right now, finally, we are</p> <p>20 marking as Borth 6 a study titled Victor Sonic</p> <p>21 PestChaser Repellent Efficacy Study using Wild</p> <p>22 Norway Rats.</p> <p>23 A. Okay.</p> <p>24 Q. Have you seen this before?</p>	<p style="text-align: right;">Page 88</p> <p>1 A. I have.</p> <p>2 Q. Okay. And you make reference to this</p> <p>3 PowerPoint in your report. A moment ago, you</p> <p>4 wanted to clarify on relied upon.</p> <p>5 A. Yes.</p> <p>6 Q. What would you like --</p> <p>7 A. I'd like to say that for this PowerPoint,</p> <p>8 as well as the other one -- we're assuming it's a</p> <p>9 PowerPoint. It looks like that.</p> <p>10 I did read it. I did understand what they</p> <p>11 were doing, but since this was not published in any</p> <p>12 scientific journal, I took it just as extra</p> <p>13 information.</p> <p>14 So I qualified relied upon to say yes, I</p> <p>15 read it -- I read both of these, but I didn't put</p> <p>16 as much scientific weight on them as I would have a</p> <p>17 report that was either published in a journal or</p> <p>18 that had a standard research report format,</p> <p>19 question -- you know, hypothesis, results,</p> <p>20 conclusions.</p> <p>21 Q. Just so we're clear --</p> <p>22 A. This --</p> <p>23 Q. -- in the correlation report, which we'll</p> <p>24 get to in a moment --</p>
<p style="text-align: right;">Page 87</p> <p>1 A. Yes.</p> <p>2 Q. Okay. You -- and again, that's included</p> <p>3 in the list of devices -- or the list of references</p> <p>4 that you relied upon, is that right?</p> <p>5 A. Yes.</p> <p>6 Q. All right. I want to go through first --</p> <p>7 A. Can I qualify relied upon or were you</p> <p>8 going to get to that?</p> <p>9 Q. Well, I'm going to ask you some questions</p> <p>10 about that, but if you have something that you need</p> <p>11 to offer --</p> <p>12 A. No, I'll wait. I'll wait. It will come</p> <p>13 up, I'm sure.</p> <p>14 Q. Okay. Let's start out with this</p> <p>15 Ultrasound and Anthropod Pest Control, Hearing is</p> <p>16 Believing.</p> <p>17 A. A-r.</p> <p>18 Q. Arthropod. Is that a real word?</p> <p>19 A. Oh, yeah. Anthropod is not.</p> <p>20 Q. Oh, okay. And that's Borth 5. So please</p> <p>21 take that.</p> <p>22 Okay. So you testified a moment ago</p> <p>23 you've seen this before, you've reviewed it before,</p> <p>24 is that right?</p>	<p style="text-align: right;">Page 89</p> <p>1 A. Yes.</p> <p>2 Q. -- there's a number of efficacy reports</p> <p>3 attached to that correlation report, right?</p> <p>4 A. Yes.</p> <p>5 Q. And none of those are published in</p> <p>6 peer-reviewed journals, are they?</p> <p>7 A. No. Well, I don't know. I --</p> <p>8 Q. Because you didn't do a literature --</p> <p>9 A. I -- they didn't come up in any of the</p> <p>10 searches that I did.</p> <p>11 Q. Which were -- and we're talking about the</p> <p>12 Google searches?</p> <p>13 A. Yes.</p> <p>14 Q. Okay. I have some questions about this</p> <p>15 Ultrasound and Arthropod Pest Control, Hearing is</p> <p>16 Believing. What does arthropod mean?</p> <p>17 A. Arthropod is a phylogenetic term that</p> <p>18 would be at the phylum order -- kingdom phylum</p> <p>19 class order, that whole series. Arthropods are</p> <p>20 jointed animals. They're segmental bodies.</p> <p>21 Q. These pages are not numbered. So I</p> <p>22 apologize for that, but if you turn in about --</p> <p>23 it's got to be about 12 or so pages.</p> <p>24 There is a -- first, a sheet that has a</p>

<p style="text-align: right;">Page 90</p> <p>1 number of pictures of ultrasonic devices on it.</p> <p>2 A. Okay. Let me find that.</p> <p>3 Q. Those might be double-sided, too.</p> <p>4 A. They are. Okay. I have the pictures.</p> <p>5 Q. Do you know if any of these devices are</p> <p>6 the Weitech devices that were tested?</p> <p>7 A. No, I do not.</p> <p>8 Q. Okay. In the bottom left, there's a</p> <p>9 device named Pestex.</p> <p>10 A. Uh-huh. Yes.</p> <p>11 Q. Is that one of the devices that was</p> <p>12 included in the correlation report?</p> <p>13 A. I do not recall.</p> <p>14 Q. Just so the record is clear, it looks like</p> <p>15 in the correlation report, which we'll discuss in a</p> <p>16 moment, there's a product named VermineX.</p> <p>17 So you're unaware if any of these are the</p> <p>18 Weitech devices that were tested?</p> <p>19 A. I was unaware.</p> <p>20 Q. If you go to the next page, it's a page</p> <p>21 labeled manufacturers and retailers claim that</p> <p>22 pests can be repelled by ultrasonic devices. Then,</p> <p>23 it lists a number of pests.</p> <p>24 A number of these pests were actually</p>	<p style="text-align: right;">Page 92</p> <p>1 And I don't remember what order they're</p> <p>2 in. They're one of these transition organisms</p> <p>3 between a -- on the ecologic or the evolutionary</p> <p>4 scale. They're not -- they don't have all of the</p> <p>5 characteristics that a more advanced insect would</p> <p>6 have.</p> <p>7 So I mean, I don't know. If you want to</p> <p>8 know more, I can keep babbling but --</p> <p>9 Q. I think you've hit the highlights.</p> <p>10 MR. FALKOF: You never saw silverfish?</p> <p>11 MR. BARTELA: No.</p> <p>12 BY MR. BARTELA:</p> <p>13 Q. Okay. If we turn to the next page, it's,</p> <p>14 again, what looks to be a PowerPoint slide. It's</p> <p>15 labeled preposterous claims by manufacturers and</p> <p>16 retailers.</p> <p>17 Could you read these three claims listed</p> <p>18 into the record for us?</p> <p>19 A. Yes. The first bullet, gets rid of</p> <p>20 household pests without chemicals or poisons.</p> <p>21 Second bullet, our safe electronic pest repellers</p> <p>22 and flea collars use high-frequency sound to drive</p> <p>23 away pests.</p> <p>24 Third bullet, millions of satisfied users</p>
<p style="text-align: right;">Page 91</p> <p>1 tested against the Weitech devices, is that fair?</p> <p>2 A. Yes.</p> <p>3 Q. There's some that weren't?</p> <p>4 A. Yes. At least that I didn't see reports</p> <p>5 on, yes.</p> <p>6 Q. And what are -- so the list, just so the</p> <p>7 record is clear, is rats, mice, squirrels,</p> <p>8 mosquitos, ants, spiders, cockroaches, flies,</p> <p>9 fleas, ticks, crickets, yellow jackets, bees,</p> <p>10 moths, water bugs, and silverfish.</p> <p>11 What of these pests weren't tested on the</p> <p>12 Weitech devices?</p> <p>13 A. I did not see reports on squirrels,</p> <p>14 mosquitos, ticks, bees -- and there's a distinction</p> <p>15 there -- an entomological distinction, water bugs,</p> <p>16 or silverfish, the distinction being that since</p> <p>17 Subi wrote this as an entomologist, yellow jackets</p> <p>18 are wasps, they're not bees.</p> <p>19 So he did test yellow jackets, but I don't</p> <p>20 remember seeing anything on bees.</p> <p>21 Q. What are silverfish?</p> <p>22 A. Arthropods. They're usually found in damp</p> <p>23 places. They are silver in color, torpedo-shaped,</p> <p>24 long antenna.</p>	<p style="text-align: right;">Page 93</p> <p>1 report that these products safely chase away fleas,</p> <p>2 mice, rats, squirrels, and other rodents, as well</p> <p>3 as roaches, moths, ants, spiders, mosquitos, and</p> <p>4 many other creepy pests.</p> <p>5 And the source that he used was an</p> <p>6 on-line, www.hitecpet.com/pestcontrol.html.</p> <p>7 Q. Okay. Thank you. We know that -- at</p> <p>8 least from the title page that this was prepared by</p> <p>9 Dr. Subramanyam, right?</p> <p>10 A. It's in the same PowerPoint file, yeah.</p> <p>11 Q. Okay. And you don't have any reason to</p> <p>12 dispute that Mr. -- or Dr., rather, Subramanyam</p> <p>13 prepared this?</p> <p>14 A. No.</p> <p>15 Q. And Dr. Subramanyam, as we talked about a</p> <p>16 moment ago, is the doctor, along with some of his</p> <p>17 associates, that performed some of the efficacy</p> <p>18 studies that we find in Applica's records?</p> <p>19 A. Correct.</p> <p>20 Q. So when you were reviewing this, you</p> <p>21 didn't find it strange that Dr. Subramanyam would</p> <p>22 label a PowerPoint slide preposterous claims by</p> <p>23 manufacturers and retailers?</p> <p>24 A. No, because he has a source there that I</p>

<p style="text-align: right;">Page 94</p> <p>1 did not look up, but he probably took those words 2 from this source of hitecpet.com. 3 And it's -- no, I didn't have any -- it 4 didn't cause me -- it didn't cause me to 5 second-guess or to think twice about what he's 6 saying or why. 7 Q. It didn't make you question his results at 8 all? 9 MR. FALKOF: I'm going to object to the 10 question. Results -- I mean, we don't know 11 whether, for example, this came before or after the 12 Weitech testing. And I'm not sure what you mean by 13 his results then. 14 MR. BARTELA: Objection noted. 15 BY MR. BARTELA: 16 Q. You can answer, if you understand my 17 question. 18 A. That got me off track. Could you repeat 19 it, please? 20 MR. BARTELA: Could you read it back for him, 21 please? 22 (Whereupon, the record was read.) 23 THE WITNESS: No. 24</p>	<p style="text-align: right;">Page 96</p> <p>1 European corn borer, the seventh is cabbage looper, 2 and the eighth, bollworm. 3 Q. Do you know if any of these cited studies 4 used Weitech branded devices specifically? 5 A. I do not. 6 Q. Did you endeavor to find any of these 7 studies? 8 A. I did not. Well, let me qualify. 9 Q. Go ahead. 10 A. He's listed under the cockroaches some of 11 the Gold articles -- Ballard, Gold, Koehler. So 12 some of them, I did. 13 Q. Well, fair enough. So some of those were 14 provided to you as a result -- 15 A. Right. 16 Q. -- of being relied upon by Dr. Gold? 17 A. Right. 18 Q. But you didn't actively go out and search 19 for any of these papers or -- 20 A. No. 21 Q. -- articles, whatever they might be? No? 22 A. No. 23 Q. And why didn't you do that? 24 A. Primarily, because they're outside the</p>
<p style="text-align: right;">Page 95</p> <p>1 BY MR. BARTELA: 2 Q. Did you contact him to figure out why he 3 had prepared a slide labeled preposterous claims by 4 manufacturers and retailers? 5 A. I did not. 6 Q. If you look forward -- let's try to be 7 specific about this. Three slides. You'll see 8 that there's a slide labeled published research 9 results. 10 A. Yes. 11 Q. Are you with me? 12 A. Yes. 13 Q. And on the following page and for a few 14 pages after -- three full pages, there is a chart 15 that recounts different published studies regarding 16 the use of ultrasonic waves or ultrasonic devices 17 to repel pests. Do you see those? 18 A. Yes. 19 Q. What pests here does Dr. Subramanyam 20 outline in this chart? 21 A. In the first column of these three pages, 22 the first pest is flea, the second pest is 23 cockroach, the third pest is tick, the fourth pest 24 is -- and fifth pest is mosquito, the sixth one is</p>	<p style="text-align: right;">Page 97</p> <p>1 scope of the claims on the package label, except 2 for cockroaches there. 3 And then, you could say under the category 4 other pests, which might be considered flea, 5 tick, it depends. I mean, I guess ticks can be 6 considered a pest if they're, you know, in your 7 house. 8 Q. What about mosquitos, is that a common 9 pest in the United States? 10 A. It certainly is, yes. Indoors, probably 11 not -- 12 Q. So that could be -- I'm sorry. 13 A. Probably not a pest indoors, unless you're 14 in a third world country. 15 Q. Did you ever have a mosquito in your 16 house? 17 A. I have. 18 Q. That can certainly be another pest -- 19 A. It could be. 20 Q. -- considered by the -- 21 A. It could be. 22 Q. Considered by the packaging, just so -- 23 A. Uh-huh. 24 Q. The next page is 2001 FTC -- the FTC</p>

<p style="text-align: right;">Page 98</p> <p>1 warning?</p> <p>2 A. Yes.</p> <p>3 Q. Did you go and give that FTC warning a</p> <p>4 read?</p> <p>5 A. Yes, as part of -- if that's the same one</p> <p>6 that we looked at before. 2001, yeah.</p> <p>7 Q. Okay. I think we can agree that it's</p> <p>8 likely the same one, but for the purposes of the</p> <p>9 questions I'm going to ask you, I'm referring to</p> <p>10 the 2001 FTC warning that you cite in your study --</p> <p>11 A. Okay.</p> <p>12 Q. -- which has been the topic of some</p> <p>13 discussion in this case.</p> <p>14 Did you do any research into how the FTC</p> <p>15 investigates consumer products? We talked a little</p> <p>16 bit about this earlier, but I want to ask</p> <p>17 specifically, did you do any research on how the</p> <p>18 FTC investigates consumer products?</p> <p>19 A. Not specifically. The only knowledge I</p> <p>20 have is what I gleaned from reading Dr. Gold's</p> <p>21 report.</p> <p>22 Q. Okay. Do you have any reason to disagree</p> <p>23 with the FTC's 2001 warning?</p> <p>24 A. No reason to disagree, no.</p>	<p style="text-align: right;">Page 100</p> <p>1 would not encompass the reports done by Dr. Subi of</p> <p>2 the Weitech branded devices?</p> <p>3 A. No reason for me to assume otherwise.</p> <p>4 Q. If you go to the very next page --</p> <p>5 A. Yes.</p> <p>6 Q. -- he -- the doctor, that is,</p> <p>7 Dr. Subramanyam, he outlines the arthropods used in</p> <p>8 tests.</p> <p>9 He says -- or what I take him to be saying</p> <p>10 is that they tested the devices on cat fleas,</p> <p>11 German cockroaches, ants, and Eastern yellow</p> <p>12 jackets?</p> <p>13 A. Yes.</p> <p>14 Q. Those are the same pests that were tested</p> <p>15 against the Weitech branded devices by</p> <p>16 Dr. Subramanyam?</p> <p>17 A. I'm not so sure about cat fleas. He might</p> <p>18 have. I'd have to look at -- I'd have to look to</p> <p>19 make sure, but I know he tested German cockroach.</p> <p>20 And the ant studies, I think -- he has</p> <p>21 here his associate. I'm quite sure he did those.</p> <p>22 And Eastern yellow jacket, I think he's the author</p> <p>23 on them. So I think the answer is yes.</p> <p>24 Q. Thank you. The next page encompasses some</p>
<p style="text-align: right;">Page 99</p> <p>1 Q. All right. If you'd turn forward a page,</p> <p>2 there's a slide here called Kansas State University</p> <p>3 test results, ultrasonic devices against arthropod</p> <p>4 pests, 2000 to 2003.</p> <p>5 A. Yes.</p> <p>6 Q. Dr. Subi doesn't give us the names of the</p> <p>7 devices he's testing, is that fair?</p> <p>8 A. That's correct.</p> <p>9 Q. He labels them A, B, C, D, and E, is that</p> <p>10 right?</p> <p>11 A. Yes.</p> <p>12 Q. We can agree generally that -- and correct</p> <p>13 me if I'm wrong that the year 2000 to 2003 would</p> <p>14 encompass the time span in which Dr. Subramanyam</p> <p>15 and his team are doing efficacy studies of the</p> <p>16 Weitech branded devices, is that fair?</p> <p>17 A. I would assume. I mean, my assumption is</p> <p>18 based on the report dates that are included in the</p> <p>19 correlation report. And I think they're 2001,</p> <p>20 2002.</p> <p>21 Q. Right. So we have nothing in the records</p> <p>22 that are at issue in this case, which you've</p> <p>23 outlined in your report, which I've put in front of</p> <p>24 you now to believe that this 2000 to 2003 date</p>	<p style="text-align: right;">Page 101</p> <p>1 more critters.</p> <p>2 A. Okay.</p> <p>3 Q. Long-bodied cellar spiders, field and</p> <p>4 house crickets, and then, what he lists as a fly</p> <p>5 complex, including green bottle fly, flesh fly,</p> <p>6 house fly, blow fly, two other unknown fly species,</p> <p>7 the imperial scorpion, and the Indian meal moth.</p> <p>8 Are these all insects that were also</p> <p>9 tested against the Weitech branded devices?</p> <p>10 A. Yes. In general parlance, yes. Spiders</p> <p>11 are not officially insects and neither are</p> <p>12 scorpions, but they're pests.</p> <p>13 Q. Thank you. All right. The following</p> <p>14 pages, he has some charts here about sound</p> <p>15 characterization.</p> <p>16 A. Okay.</p> <p>17 Q. Do you see that?</p> <p>18 A. Yes.</p> <p>19 Q. Did you review this?</p> <p>20 A. I looked at them, yes.</p> <p>21 Q. Does this tell you anything?</p> <p>22 A. Well, these are the types of things that I</p> <p>23 had to consult or ask Les Campbell about, because I</p> <p>24 was not familiar with graphs like this. Now, I can</p>

<p style="text-align: right;">Page 102</p> <p>1 speak to them in a general way.</p> <p>2 Q. Right. So before this case, you would</p> <p>3 have no technical or scientific expertise about --</p> <p>4 for instance, the first thing we see here is a</p> <p>5 chart outlining the frequency kilohertz.</p> <p>6 A. I would not.</p> <p>7 Q. And the second chart looks like sound</p> <p>8 pressure?</p> <p>9 A. Yes.</p> <p>10 Q. So you, again, before this case would not</p> <p>11 have any technical or scientific expertise about</p> <p>12 that --</p> <p>13 A. No.</p> <p>14 Q. -- topic?</p> <p>15 A. No.</p> <p>16 Q. Do you understand sound pressure to mean</p> <p>17 the decibel?</p> <p>18 A. That's what I understand it to be equated</p> <p>19 to.</p> <p>20 I don't know whether -- if you were a</p> <p>21 physicist whether you would -- you might split</p> <p>22 hairs here and say that it's a different type of</p> <p>23 measurement, but at my level of understanding,</p> <p>24 sound pressure and decibels are the same.</p>	<p style="text-align: right;">Page 104</p> <p>1 measurement of sound output inside test enclosures.</p> <p>2 Do you see that?</p> <p>3 A. Yes, I do.</p> <p>4 Q. If you turn to the next page, what we have</p> <p>5 here is a picture of the test environment that was</p> <p>6 being used, at least in the underlying tests that</p> <p>7 make up this PowerPoint --</p> <p>8 A. Yes.</p> <p>9 Q. -- is that fair?</p> <p>10 A. Yes.</p> <p>11 Q. And we see that they used Plexiglas</p> <p>12 enclosures that were four by four by four feet?</p> <p>13 A. Uh-huh. Yes.</p> <p>14 Q. Is that the same -- and these -- well,</p> <p>15 scratch that -- or strike that, rather.</p> <p>16 These four-by-four-by-four enclosures were</p> <p>17 then connected with a two to three-foot-long tube</p> <p>18 or conduit --</p> <p>19 A. Yes.</p> <p>20 Q. -- is that fair? Is this the same style</p> <p>21 test that was done in the underlying efficacy tests</p> <p>22 of the Weitech devices?</p> <p>23 A. I can't say for sure. I'd have to look at</p> <p>24 each one and I just don't know.</p>
<p style="text-align: right;">Page 103</p> <p>1 Q. And you said a moment ago that this was --</p> <p>2 this topic was something you consulted with</p> <p>3 Mr. Campbell about, the topic of --</p> <p>4 A. Yes.</p> <p>5 Q. -- frequency kilohertz, sound pressure,</p> <p>6 decibels, is that correct?</p> <p>7 A. Yes. Yes.</p> <p>8 Q. And at this point, you said you have a</p> <p>9 general understanding of the frequency kilohertz</p> <p>10 and decibel levels, is that correct?</p> <p>11 A. Yes.</p> <p>12 Q. So you would agree, at this point, you</p> <p>13 don't even have a technical or scientific expertise</p> <p>14 in frequency kilohertz or sound pressure, is that</p> <p>15 correct?</p> <p>16 A. No, I do not.</p> <p>17 Q. And so the following pages outline charts,</p> <p>18 the same information for Devices A through E,</p> <p>19 that's correct?</p> <p>20 A. Yes.</p> <p>21 Q. Okay. If you go a few pages forward --</p> <p>22 probably more than a few. Maybe about 10 pages</p> <p>23 forward.</p> <p>24 There's another title slide that's labeled</p>	<p style="text-align: right;">Page 105</p> <p>1 Q. Okay. Fair enough. If you go just a</p> <p>2 couple pages forward, you'll see there's cockroach</p> <p>3 tests --</p> <p>4 A. Yes.</p> <p>5 Q. -- with some truly terrifying pictures of</p> <p>6 cockroaches. Have you reviewed this portion of the</p> <p>7 PowerPoint?</p> <p>8 A. I looked at it, yes.</p> <p>9 Q. Okay. If you go forward just a few more</p> <p>10 pages, Dr. Subramanyam gives some conclusions that</p> <p>11 he reached.</p> <p>12 A. Okay.</p> <p>13 Q. He says in his second conclusion, paired</p> <p>14 t-tests indicated that differences in cockroach</p> <p>15 numbers were not statistically significant with a P</p> <p>16 value of less than .05.</p> <p>17 A. Yes.</p> <p>18 Q. As a scientist, what does that tell you?</p> <p>19 A. That tells me that there's a greater than</p> <p>20 5 percent chance that the results that he received</p> <p>21 were not -- were due to -- were not due to chance.</p> <p>22 There was some treatment -- there was not</p> <p>23 a treatment effect when you set the level at .05.</p> <p>24 If he had set it higher, which is an arbitrary</p>

<p style="text-align: right;">Page 106</p> <p>1 thing, let's just say .25, there might have been 2 significance. 3 Q. So I want to understand this. Is this a 4 level of specificity about the results that he 5 reached or is that too simplistic? 6 A. No. It's -- .05 is common in pest 7 management and efficacy studies to -- as kind of a 8 threshold of whether you have a treatment effect, 9 basically accepting the null hypothesis or not. 10 That's the threshold. Now, it's an arbitrary 11 setting, but it's commonly used. 12 Q. Okay. So it's a commonly accepted 13 standard -- 14 A. It is. 15 Q. -- in the academic community? 16 A. Yes. I would also -- the answer is yes. 17 Since it's arbitrary, every researcher can set it 18 a priori to what they think is the right thing to 19 do. You might set it lower than that. You might 20 set it higher than that. 21 Just by way of explanation, if you're in a 22 very controlled laboratory situation, you could get 23 significance at a lower level. When you're 24 outdoors, where there's more factors that can</p>	<p style="text-align: right;">Page 108</p> <p>1 there was no statistically significant treatment 2 effect? 3 A. Correct. 4 Q. Okay. He goes on to say the level of 5 repellency observed may not be of commercial 6 significance. That's the fourth bullet point. 7 A. It is. 8 Q. In your experience working for a long 9 time, what I think was 27 years for a company that 10 produced chemical applications to achieve -- or to 11 try to achieve repellency, if you got a report, 12 hypothetically, that a treatment you were 13 investigating was not statistically significant, 14 the researcher is telling you there's likely not a 15 level of repellency that may be of commercial 16 significance, what would you have done? 17 A. Personally, I would never have made a 18 binding decision based on one study. 19 Given the words in his fourth bullet 20 point, they were carefully chosen. And the word 21 may not be -- the words may not be of commercial 22 significance is his opinion. 23 And every company has their own culture, 24 let's say, or their own risk-taking. I don't know.</p>
<p style="text-align: right;">Page 107</p> <p>1 affect things, the researcher might readily set a 2 .10, because there's more things -- more 3 experimental error that can come into play. 4 Q. Okay. But this .05 level is -- 5 A. Yeah, it's -- 6 Q. -- generally accepted? 7 A. Yes, it is. 8 Q. And if we were to -- if we were to say -- 9 just so I'm understanding, hypothetically, had this 10 sentence read paired t-tests indicated that 11 differences in cockroach numbers were statistically 12 significant at P greater than .05, would that tell 13 you as a scientist that there was -- the treatment 14 that was being tested had some efficacy results 15 that were successful? 16 A. It would tell me that the specific 17 experiments that he did -- if his hypothesis was 18 that there was no difference between treated and 19 untreated, if there was a significant difference, 20 then that would tell me that there's a greater 21 likelihood that the treatment effect was true, that 22 there was a difference, it wasn't just due to 23 chance. 24 Q. So he's saying here that there was --</p>	<p style="text-align: right;">Page 109</p> <p>1 I'm beyond -- their own risk-taking profile. And 2 so some might take it and some might not. And he 3 doesn't know. 4 Q. A moment ago, you said you would never 5 rely on a single test. 6 That's because it's important to replicate 7 results, right, when you're trying to figure out if 8 something works? 9 A. Uh-huh. Yes. 10 Q. And it's important from a scientific 11 standpoint, correct? 12 A. Yes. 13 Q. Something that's generally accepted in the 14 scientific field -- 15 A. Yes. 16 Q. -- is that fair? 17 A. But what he did, he -- if you read -- 18 MR. FALKOF: There's no question pending. 19 THE WITNESS: Okay. 20 BY MR. BARTELA: 21 Q. For Device -- so you reviewed this. You 22 saw these results. 23 Did you go back and try to see if 24 Devices A through E had, for instance, frequency</p>

<p style="text-align: right;">Page 110</p> <p>1 outputs or decibel levels consistent with the</p> <p>2 Weitech brand devices --</p> <p>3 A. Yes.</p> <p>4 Q. -- that were used?</p> <p>5 A. I tried to match them up. And it was not</p> <p>6 very easy. And I don't know that I was correct,</p> <p>7 but I tried to match his coded -- what he codes</p> <p>8 here for whatever audience he was giving this to</p> <p>9 back to the items that were in question. And I</p> <p>10 don't know that I was right or not.</p> <p>11 Because this is a high-level seminar</p> <p>12 presentation, he doesn't give the details that</p> <p>13 you'd need to be exact in your -- in that --</p> <p>14 Q. Would you agree -- oh. Sorry.</p> <p>15 A. That's okay.</p> <p>16 Q. Would you agree that you had a tough time</p> <p>17 trying to match this up -- or part of the reason,</p> <p>18 rather, that you had a tough time trying to match</p> <p>19 the frequency outputs and the sound pressure</p> <p>20 outputs in this specific PowerPoint with those</p> <p>21 included in the correlation report was because you</p> <p>22 don't really have an expertise in that electrical</p> <p>23 function of the device?</p> <p>24 A. It was even more basic than that. Had he</p>	<p style="text-align: right;">Page 112</p> <p>1 now that the court reporter has marked as Borth 4.</p> <p>2 And it's another PowerPoint -- what looks</p> <p>3 to be a PowerPoint presentation. And this one is</p> <p>4 entitled response of several arthropod species to</p> <p>5 three ultrasonic devices from Weitech.</p> <p>6 A. Okay.</p> <p>7 Q. So again, just to be clear, you've seen</p> <p>8 this PowerPoint prior to today?</p> <p>9 A. Yes.</p> <p>10 Q. This was included in your numbered list of</p> <p>11 references?</p> <p>12 A. Yes.</p> <p>13 Q. And you gave a qualifier on that earlier.</p> <p>14 A. Yes.</p> <p>15 Q. Do you know, was this prepared by</p> <p>16 Dr. Subramanyam?</p> <p>17 A. That's a good question. His name is not</p> <p>18 on it anywhere that I can see. So I don't know.</p> <p>19 Q. Let me ask you a question. Will you look</p> <p>20 at the very last page of this document?</p> <p>21 A. Okay.</p> <p>22 Q. It says thanks in word art?</p> <p>23 A. Yes.</p> <p>24 Q. If you look at the preceding -- the</p>
<p style="text-align: right;">Page 111</p> <p>1 somewhere, you know, given a table of equivalencies</p> <p>2 or something, we could have -- it could have been</p> <p>3 matched, but because the frequency of these devices</p> <p>4 overlaps, I don't think -- and we'd have to look,</p> <p>5 but I don't think you have a -- in these Devices A</p> <p>6 through E, there's probably not a 45 to 55, and</p> <p>7 then, a 56 to a 70. They're all overlapping.</p> <p>8 And so it's very difficult to match his</p> <p>9 Device A through E with Weitech's devices that he</p> <p>10 was testing.</p> <p>11 Q. Do you think a person with a greater deal</p> <p>12 of scientific or technical expertise about</p> <p>13 frequency levels and decibel levels would have been</p> <p>14 able to look at the information included here by</p> <p>15 Dr. Subramanyam and compare it with the correlation</p> <p>16 report?</p> <p>17 A. I really don't know. I --</p> <p>18 Q. That's fair enough. Did you ask anybody</p> <p>19 at Applica whether this -- the devices that were</p> <p>20 tested within this PowerPoint that we're looking at</p> <p>21 right now were Weitech devices?</p> <p>22 A. No.</p> <p>23 Q. We can go now to the next PowerPoint that</p> <p>24 we've marked, which is what I'm going to hand you</p>	<p style="text-align: right;">Page 113</p> <p>1 preceding one that we looked at --</p> <p>2 A. Yeah.</p> <p>3 Q. -- if you'd look at the very last page of</p> <p>4 that for me, is that the same thanks?</p> <p>5 A. It seems like it, yes.</p> <p>6 Q. Okay. So back to what we've labeled as --</p> <p>7 is that Borth 4?</p> <p>8 A. 4.</p> <p>9 Q. So on the second page of this, there are</p> <p>10 three -- there are three devices listed.</p> <p>11 A. Yes.</p> <p>12 Q. They're called the Transonic 100,</p> <p>13 Transonic CIX 0600, and the Transonic 800.</p> <p>14 A. Correct.</p> <p>15 Q. And were these generally the three devices</p> <p>16 that were tested by Dr. Subramanyam and his team?</p> <p>17 A. Yes.</p> <p>18 Q. These are the Weitech devices --</p> <p>19 A. Yes.</p> <p>20 Q. -- correct?</p> <p>21 A. It seems so, yes.</p> <p>22 Q. Okay. And if we look forward a page,</p> <p>23 again, we see another two pages where he outlines</p> <p>24 the arthropod species that were presumably tested.</p>

<p style="text-align: right;">Page 114</p> <p>1 A. Correct.</p> <p>2 Q. And again, just so the record is clear,</p> <p>3 that reflects cat fleas, German cockroaches, ants,</p> <p>4 Eastern yellow jackets, long-bodied spiders, field</p> <p>5 crickets, and a fly complex consisting of green</p> <p>6 bottle fly, flesh fly, house fly, blow fly, and two</p> <p>7 other unknown fly species.</p> <p>8 A. Correct.</p> <p>9 Q. This looks similar to the arthropod</p> <p>10 species outline from the previous --</p> <p>11 A. Yes.</p> <p>12 Q. -- PowerPoint, right? Okay. I have just</p> <p>13 a few questions about this for you, Dr. Borth.</p> <p>14 If you go forward, at a certain point,</p> <p>15 you'll find a page labeled responses of German</p> <p>16 cockroaches.</p> <p>17 A. Okay. I have it.</p> <p>18 Q. Okay. So he lists the German cockroach as</p> <p>19 the <i>Blattella germanica</i>.</p> <p>20 A. Yes.</p> <p>21 Q. Is that a common form of cockroach?</p> <p>22 A. They're very common, German cockroach.</p> <p>23 That's the Latin name, yeah, <i>Blattella germanica</i>.</p> <p>24 Q. Okay. Would you find these all across the</p>	<p style="text-align: right;">Page 116</p> <p>1 Q. If you go forward a few more pages,</p> <p>2 there's a slide labeled cockroach tests with six</p> <p>3 pictures --</p> <p>4 A. Yes.</p> <p>5 Q. -- what appears to be six pictures.</p> <p>6 A. Yes.</p> <p>7 Q. In these pictures, it looks like there are</p> <p>8 cockroaches that are actually on the ultrasonic</p> <p>9 devices.</p> <p>10 A. It does.</p> <p>11 Q. Is that a result that you saw anywhere in</p> <p>12 any of Dr. Subi's efficacy studies with regard to</p> <p>13 the Weitech devices?</p> <p>14 A. There was one comment made in one of the</p> <p>15 reports that this happened. I don't recall any</p> <p>16 measurements or anything. It was just an</p> <p>17 observation as to that.</p> <p>18 Q. Okay. As an entomologist, especially one</p> <p>19 who worked in the field of creating applications to</p> <p>20 repel insects or arthropods, do you find this</p> <p>21 result concerning?</p> <p>22 A. Well, I'd want to find out why. That</p> <p>23 would be my approach to it, why are they there.</p> <p>24 And you conduct some experimentation to try to</p>
<p style="text-align: right;">Page 115</p> <p>1 United States?</p> <p>2 A. Yes.</p> <p>3 Q. On the next page, you'll see that, again,</p> <p>4 we have a picture of the test environment that was</p> <p>5 used.</p> <p>6 A. Correct.</p> <p>7 Q. And this says that they used two</p> <p>8 Plexiglass enclosures that were four feet by four</p> <p>9 feet by four feet with a two-foot-long conduit</p> <p>10 square on the bottom.</p> <p>11 This -- again, this is the same test</p> <p>12 structure that was included in the previous</p> <p>13 PowerPoint, right?</p> <p>14 A. Yes, the physical design. I -- we'd have</p> <p>15 to go back. I don't know whether the -- the third</p> <p>16 bullet that says where the ultrasonic unit was</p> <p>17 mounted, I'm not sure whether that's exactly the</p> <p>18 same as the other one but --</p> <p>19 Q. Okay. That's a fair distinction, but in</p> <p>20 general --</p> <p>21 A. Yes, in general.</p> <p>22 Q. -- the two Plexiglass boxes connected by a</p> <p>23 conduit is the form of the test?</p> <p>24 A. Yes.</p>	<p style="text-align: right;">Page 117</p> <p>1 figure that out.</p> <p>2 Q. Do you know if any experimentation was</p> <p>3 ever done to try to figure out why they were on the</p> <p>4 repellers?</p> <p>5 A. I do not.</p> <p>6 Q. If you were running a test and this was</p> <p>7 the result, would you deduce that the ultrasonic</p> <p>8 repellers were effective in repelling cockroaches?</p> <p>9 MR. FALKOF: I'm going to object to the</p> <p>10 question. When you say this was the result, are</p> <p>11 you assuming that all of the cockroaches went to</p> <p>12 the device or some percentage of the cockroaches</p> <p>13 went to a device?</p> <p>14 BY MR. BARTELA:</p> <p>15 Q. Doctor, do you understand my question?</p> <p>16 A. Again, that exchange --</p> <p>17 MR. BARTELA: Can you read it back for me?</p> <p>18 (Whereupon, the record was read.)</p> <p>19 THE WITNESS: I would not deduce anything until</p> <p>20 I had more data.</p> <p>21 BY MR. BARTELA:</p> <p>22 Q. Okay. That's fair. If you were running a</p> <p>23 test, where at least some percentage of the</p> <p>24 arthropods you were trying to repel were attracted</p>

<p style="text-align: right;">Page 118</p> <p>1 to the mechanism you were using to repel them, 2 would you have concerns about the efficacy of that 3 device in actually repelling the insects? 4 MR. FALKOF: Objection as to the form of the 5 question. Go ahead. 6 THE WITNESS: If you use the word attract -- 7 which is a very specific word when it comes to 8 testing things. 9 So I would not assume that these were 10 attracting. I don't know why they were there. 11 We'd have to try to experiment -- you know, 12 experiment with it to find out. 13 BY MR. BARTELA: 14 Q. Do you think that someone put these 15 cockroaches on the devices? 16 A. I have no reason to believe that. 17 Q. Okay. You would agree that the pictures 18 that we're looking at right now show various angles 19 of a pest repeller with what, in my estimation, 20 would be 20, 20 plus cockroaches on or directly 21 around the -- oh. Do you need to see the color 22 one? 23 MR. FALKOF: Yeah. 24</p>	<p style="text-align: right;">Page 120</p> <p>1 The first column is labeled date and day. 2 And so it looks to me, and I want your opinion, 3 that this test started on 4/3. 4 A. It looks that way, yes. 5 Q. And it went to 4/8. 6 A. Yes. 7 Q. And the next column is labeled unit in 8 enclosure. And there's an A and a B. 9 A. Yes. 10 Q. Okay. And in the A column, the device is 11 listed as off until April 6th, is that correct? 12 A. April 7th. 13 Q. Okay. April -- that's fair. April 7th 14 and April 8th, the A -- unit enclosure A is listed 15 as on. 16 A. Correct. 17 Q. And for B, the unit enclosure is listed as 18 off on April 4th but on from April 5th and 6th, and 19 then, off again on April 7th and 8th. 20 A. Correct. 21 Q. Is that -- am I reading that correct? 22 A. Yes. 23 Q. And the next two columns are labeled no 24 insects in A, no -- no. insects in B. That means</p>
<p style="text-align: right;">Page 119</p> <p>1 BY MR. BARTELA: 2 Q. On or around the device? You can -- I 3 have a color copy you can view, if you'd like. 4 MR. FALKOF: I'm going to object to the 5 question on two grounds. 6 I'm not sure whether this is one device or 7 multiple devices. It's really hard to tell. 8 I'm also objecting because there's nothing 9 here to indicate whether the device was even turned 10 on. This may have been before the test. We have 11 no idea whether this is before, during, or after 12 the test. 13 MR. BARTELA: Okay. Can you read my question 14 back, please? Thank you. 15 (Whereupon, the record was read.) 16 THE WITNESS: There are cockroaches on or 17 around the device. How many of them is hard for me 18 to say. 19 BY MR. BARTELA: 20 Q. Okay. If you will look at the preceding 21 page, it's labeled cockroach tests. 22 A. Yes. 23 Q. And we have a chart. And there are 24 several columns in this chart.</p>	<p style="text-align: right;">Page 121</p> <p>1 number of insects in A -- 2 A. Yes. 3 Q. -- and number of insects in B? 4 A. Yes. 5 Q. And it looks like they were working with 6 100 in A and 100 in B to start? 7 A. Yes. 8 Q. Okay. And the very next column is labeled 9 remarks. 10 A. Yes. 11 Q. And in the remarks, does it -- what type 12 of information is it giving us in the remarks? 13 A. It tells us when the -- on day zero, when 14 the experiment started, and then, on the second day 15 of the test -- what they label as second day, 17 of 16 48 insects were found within the openings in front 17 of unit or near the back of Unit B. 18 On the third day, 20 out of 48 insects 19 were found within openings in front of the unit or 20 near the back of Unit B. And the fourth day, 24 of 21 47 insects were found within openings in front of 22 or near the back of Unit B. And the last one, 23 Day 5, 18 of 35 insects were found within openings 24 in front of unit or near back of the Unit B.</p>

<p style="text-align: right;">Page 122</p> <p>1 Q. So certainly, for these first two entries 2 on Days 2 and 3, the unit in Enclosure B is listed 3 as on, correct?</p> <p>4 A. On for B in Days 2 and 3, correct.</p> <p>5 Q. Okay. So irregardless of -- or rather, 6 regardless of whether the pictures reflect whether 7 the devices are on or off, this chart is telling us 8 that for two days, while the unit in Enclosure B 9 was on, there were a number defined here in the 10 chart of the insects that were found either in 11 front of the unit or near the back of the unit, is 12 that fair?</p> <p>13 A. Their word is unit, yes. I -- that's the 14 word, unit.</p> <p>15 Q. Yeah. And this finding is reflected in 16 the 2000 cockroach study that Dr. Subramanyam 17 conducted, isn't that correct?</p> <p>18 A. With respect to what?</p> <p>19 Q. With respect to finding cockroaches 20 directly on or near the devices.</p> <p>21 A. I think there's a comment -- an 22 observation made that would reflect this, yeah, in 23 that report.</p> <p>24 Q. Okay. If you go a few pages forward, it</p>	<p style="text-align: right;">Page 124</p> <p>1 67 percent of the cockroaches were on the unit -- 2 on the actual ultrasonic units when those units 3 were turned on?</p> <p>4 A. That's what he's saying, yes.</p> <p>5 Q. Okay. When you reviewed this, you didn't 6 question other efficacy results of the devices 7 based on the fact that in this test, for instance, 8 67 percent of the cockroaches were actually found 9 on the active ultrasonic units?</p> <p>10 A. Well, again, I noted in the reports that I 11 put more weight on that that observation was there. 12 I read this but did not put as much value on this 13 PowerPoint presentation.</p> <p>14 Q. So you just didn't put value on it because 15 it's a PowerPoint presentation?</p> <p>16 A. I understood it to be a seminar type -- I 17 mean, there's value, but is it as valid, is it as 18 reliable as what's written in the research report, 19 I'd say no.</p> <p>20 Now, he might have -- he or his associates 21 might have written that research report based on 22 this, but the words that are used in a PowerPoint 23 slide for a seminar are just -- I would not put as 24 much weight on those words as I would on the</p>
<p style="text-align: right;">Page 123</p> <p>1 looks like Dr. Subramanyam begins to break out the 2 results of the cockroach tests by the actual 3 device.</p> <p>4 A. Yes.</p> <p>5 Q. The first device is the Transonic 100. If 6 you -- again, these pages aren't numbered so -- I'm 7 sorry. So the third page for Transonic 100 has two 8 bullets.</p> <p>9 A. Yes.</p> <p>10 Q. These are what appear to me to be 11 conclusions.</p> <p>12 A. Yes. Yes.</p> <p>13 Q. He concluded that the Transonic 100 failed 14 to repel the German cockroaches, is that correct?</p> <p>15 A. That's what he writes, yes.</p> <p>16 Q. Okay. And he also writes that Ca 67 17 percent cockroaches in the enclosures with active 18 ultrasonic unit were on the ultrasonic units. Did 19 I read that right?</p> <p>20 A. That's what he -- yes.</p> <p>21 Q. What does the Ca mean?</p> <p>22 A. I think it's a generally accepted 23 abbreviation for approximately.</p> <p>24 Q. Oh, okay. So he's saying approximately</p>	<p style="text-align: right;">Page 125</p> <p>1 document, itself, that gets filed with the 2 sponsoring agency.</p> <p>3 Q. When you say sponsoring agency, what do 4 you mean?</p> <p>5 A. Well, I -- the person who's paying for the 6 test.</p> <p>7 Q. Do you know if this test -- if this 8 PowerPoint was given to Applica?</p> <p>9 A. I do not know.</p> <p>10 Q. How do you think Applica got this?</p> <p>11 A. I would have no idea.</p> <p>12 Q. Did you review this PowerPoint before you 13 spoke with Les Campbell?</p> <p>14 A. I can't recall. I'd have to look up the 15 dates.</p> <p>16 Q. Did you ask Mr. Campbell any questions 17 about this?</p> <p>18 A. No.</p> <p>19 Q. Did you ask anybody any questions about 20 these negative results that were reported?</p> <p>21 A. No.</p> <p>22 Q. If you go forward a couple more pages, 23 you'll see they're recounting the results, I guess, 24 from the tests of the Transonic 0600.</p>

<p style="text-align: right;">Page 126</p> <p>1 A. Correct.</p> <p>2 Q. And again, there's another -- it operates</p> <p>3 kind of like a conclusory page.</p> <p>4 There's a statement here that reads German</p> <p>5 cockroaches appear to have the ability to avoid the</p> <p>6 ultrasound emitted from Transonic 0600 unit.</p> <p>7 A. Yes.</p> <p>8 Q. In your scientific opinion, what does that</p> <p>9 mean?</p> <p>10 A. It's a carefully worded statement that a</p> <p>11 scientist would use in front of an audience that</p> <p>12 doesn't box him into a corner.</p> <p>13 Q. This same statement is made in the</p> <p>14 cockroach efficacy reports from Dr. Subramanyam</p> <p>15 that are -- specifically, the one that's included</p> <p>16 in the correlation report, doesn't it?</p> <p>17 A. It might be. I'm not sure.</p> <p>18 Q. Did you -- and you didn't call</p> <p>19 Dr. Subramanyam to see what he meant here?</p> <p>20 A. No. It -- well --</p> <p>21 MR. FALKOF: There's no question.</p> <p>22 THE WITNESS: Okay.</p> <p>23 MR. BARTELA: It's about 10 to 12:00 now.</p> <p>24 MR. FALKOF: All right.</p>	<p style="text-align: right;">Page 128</p> <p>1 Transonic 800 failed to repel cockroaches?</p> <p>2 A. Well --</p> <p>3 MR. FALKOF: I'm going to object, first of all,</p> <p>4 because you said Dr. Subi. You're making that</p> <p>5 assumption, but we don't know for certain.</p> <p>6 MR. BARTELA: That's fair.</p> <p>7 THE WITNESS: Well, this is one of the things</p> <p>8 you got to read between the lines, because if you</p> <p>9 look at the title and look at the first bullet</p> <p>10 point, they don't match.</p> <p>11 BY MR. BARTELA:</p> <p>12 Q. What's the title of the document?</p> <p>13 A. Cockroach tests, Transonic 100. The first</p> <p>14 bullet point, Transonic 800 failed to repel the</p> <p>15 German cockroaches in our tests.</p> <p>16 Q. Do you think the title could be a</p> <p>17 typographical error?</p> <p>18 A. It could be. I don't know.</p> <p>19 Q. Did you ask any questions about that --</p> <p>20 A. Nope.</p> <p>21 Q. -- when you were given this material?</p> <p>22 A. Nope. It just fell into the whole realm</p> <p>23 of this is not -- the whole PowerPoint is not a</p> <p>24 refereed journal article.</p>
<p style="text-align: right;">Page 127</p> <p>1 MR. BARTELA: We can take like a 30 or</p> <p>2 40-minute break for lunch.</p> <p>3 (A lunch break was taken.)</p> <p>4 BY MR. BARTELA:</p> <p>5 Q. Dr. Borth, we were discussing before the</p> <p>6 lunch break the PowerPoint, which I think was</p> <p>7 marked as Borth 4. Would you take a look at the</p> <p>8 front and let me know?</p> <p>9 A. Yes.</p> <p>10 Q. Borth 4? Okay. So I just have a couple</p> <p>11 more questions about that and we can move on.</p> <p>12 A. Okay.</p> <p>13 Q. I think the only results we didn't go</p> <p>14 through were the Transonic 800.</p> <p>15 A. Okay.</p> <p>16 Q. And if you would -- can you take a look at</p> <p>17 those? It should be a page or two forward from</p> <p>18 where you were.</p> <p>19 A. Yes.</p> <p>20 Q. It should be maybe one more page forward.</p> <p>21 There should be a conclusory page. Do you see</p> <p>22 that?</p> <p>23 A. I do.</p> <p>24 Q. And does Dr. Subi again conclude that the</p>	<p style="text-align: right;">Page 129</p> <p>1 Q. Sure.</p> <p>2 A. So --</p> <p>3 MR. BARTELA: Well, let's go ahead and mark a</p> <p>4 different document. We'll mark this as 7. We'll</p> <p>5 go a little out of order here.</p> <p>6 (Whereupon, Borth Deposition</p> <p>7 Exhibit 7 was marked for</p> <p>8 identification.)</p> <p>9 BY MR. BARTELA:</p> <p>10 Q. Here you go. Dr. Borth, what I've put in</p> <p>11 front of you is an efficacy study from -- it</p> <p>12 appears to be dated July 1st, 2001, is that</p> <p>13 correct?</p> <p>14 A. Yes.</p> <p>15 Q. Have you seen this before?</p> <p>16 A. Yes.</p> <p>17 Q. This was included with the materials that</p> <p>18 were provided to you by counsel?</p> <p>19 A. Yes.</p> <p>20 Q. And did you rely upon this when you were</p> <p>21 making your expert opinions --</p> <p>22 A. Yes.</p> <p>23 Q. -- in this case? If we turn to Page 2 --</p> <p>24 first of all -- strike that.</p>

<p style="text-align: right;">Page 130</p> <p>1 On Page 1, we see that this was submitted</p> <p>2 by a Fangneng Huang and Bh. Subramanyam, is that</p> <p>3 correct?</p> <p>4 A. Correct.</p> <p>5 Q. And that would be the Dr. Subi we've been</p> <p>6 referring to all day?</p> <p>7 A. Correct.</p> <p>8 Q. It was submitted to Todd Weitzman.</p> <p>9 A. Yes.</p> <p>10 Q. Do you have any idea who that is?</p> <p>11 A. No.</p> <p>12 Q. Okay. Did you ever talk to a</p> <p>13 Todd Weitzman?</p> <p>14 A. No.</p> <p>15 Q. If you look on Page 2, we see that at the</p> <p>16 very top, Dr. Subi lists three devices that he's</p> <p>17 testing, the Transonic CIX 0600, the Transonic 100,</p> <p>18 and the Transonic 800, is that right?</p> <p>19 A. Yes, it is.</p> <p>20 Q. And he says that -- strike that. He also</p> <p>21 gives the technical specifications of the devices,</p> <p>22 right?</p> <p>23 A. Yes, in terms of kilohertz and it looks</p> <p>24 like decibels.</p>	<p style="text-align: right;">Page 132</p> <p>1 half of the cockroaches in the enclosures with</p> <p>2 active ultrasonic unit were hiding at the backside</p> <p>3 of or on the ultrasonic units.</p> <p>4 In the three other tests, ultrasound was</p> <p>5 apparently ineffective in controlling or repelling</p> <p>6 the German cockroaches.</p> <p>7 And then, he cites Ballard and Gold, 1982,</p> <p>8 1983, Schreck, et al., 1984. Have I accurately</p> <p>9 read that?</p> <p>10 A. Yes.</p> <p>11 Q. Would you agree that he's recounting the</p> <p>12 outcome of the test that he conducted here and</p> <p>13 specifically related to this report that's dated</p> <p>14 July 1st, 2001?</p> <p>15 A. He seemed to be, yes.</p> <p>16 Q. Okay. Do you have any reason to believe</p> <p>17 that the test that was conducted here that's dated</p> <p>18 July 1st, 2001 -- at least that's the date of the</p> <p>19 report is any different than the results that are</p> <p>20 recounted in the PowerPoint presentation we were</p> <p>21 just looking at, which is Borth 4?</p> <p>22 A. Well, do I have any reason to believe that</p> <p>23 it's different?</p> <p>24 I don't have a reason to believe it is or</p>
<p style="text-align: right;">Page 131</p> <p>1 Q. Okay. If you'd turn to Page 8, there's a</p> <p>2 section labeled discussion. Have you read this</p> <p>3 section before?</p> <p>4 A. Yes.</p> <p>5 Q. I'm going to read --</p> <p>6 MR. BARTELA: And can we go off the record for</p> <p>7 a minute?</p> <p>8 (A short break was taken.)</p> <p>9 BY MR. BARTELA:</p> <p>10 Q. Okay. So the discussion section, I'm</p> <p>11 going to read to you what's written here. I have</p> <p>12 just a couple questions for you, okay?</p> <p>13 A. Yes.</p> <p>14 Q. He writes Ballard et al. reported</p> <p>15 ultrasound could increase the German cockroach</p> <p>16 activity.</p> <p>17 The test procedures we used here were</p> <p>18 similar. Our results showed that the responses of</p> <p>19 the German cockroach to the ultrasound varied among</p> <p>20 the three ultrasonic devices.</p> <p>21 The ultrasound emitted from the Device A</p> <p>22 appeared to be able to partially but significantly</p> <p>23 repel the German cockroaches. Both Devices B and C</p> <p>24 failed to repel the insects. In addition, nearly</p>	<p style="text-align: right;">Page 133</p> <p>1 is not different, because the PowerPoint -- I mean,</p> <p>2 you can make that assumption, but it's -- it can't</p> <p>3 be validated without --</p> <p>4 Q. Let me ask it a different way, Dr. Borth.</p> <p>5 We've talked the bulk of today about this</p> <p>6 Dr. Subramanyam, and his associate, Fangneng Huang,</p> <p>7 specifically with regard to efficacy tests being</p> <p>8 done on cockroaches, is that correct?</p> <p>9 A. Yes.</p> <p>10 Q. Are you aware of any other researchers</p> <p>11 that have done efficacy studies of the Weitech</p> <p>12 branded devices with regard to German cockroaches</p> <p>13 other than Fangneng Huang and Bh. Subramanyam?</p> <p>14 A. The only one I can recall that is unknown</p> <p>15 is a study by Phil Koehler, who coded his devices</p> <p>16 in his published report. They were not named. So</p> <p>17 perhaps. I just don't know whether they were</p> <p>18 Weitechs or not.</p> <p>19 Q. Did you --</p> <p>20 A. And I don't know whether Weitech called</p> <p>21 them something else. I have no knowledge of that.</p> <p>22 Q. When you were retained as an expert by the</p> <p>23 defense in this case, did you ask anybody if anyone</p> <p>24 else had done efficacy studies with regard to</p>

<p style="text-align: right;">Page 134</p> <p>1 cockroaches other than Mr. Huang and Subramanyam?</p> <p>2 A. I did not.</p> <p>3 Q. Okay. I'd like to refer now to the</p> <p>4 correlation report, which we've marked as Borth 3.</p> <p>5 A. Is this going away for now?</p> <p>6 Q. You can just keep it somewhere around you.</p> <p>7 We might come back to it.</p> <p>8 A. All right. And this, the same way, this</p> <p>9 PowerPoint or --</p> <p>10 Q. Yeah. Just generally hang onto that.</p> <p>11 A. Okay.</p> <p>12 Q. So Dr. Borth, you have in front of you</p> <p>13 what's labeled as the correlation report. And it's</p> <p>14 marked as Borth Exhibit 3.</p> <p>15 A. Correct.</p> <p>16 Q. Have you seen this before?</p> <p>17 A. Yes, I have.</p> <p>18 Q. This has been the topic of some discussion</p> <p>19 in this case.</p> <p>20 You had a chance, obviously, to review</p> <p>21 this prior to completing your report?</p> <p>22 A. I did.</p> <p>23 Q. Did you -- and you testified earlier, I</p> <p>24 believe, correct me if I'm wrong, that you had</p>	<p style="text-align: right;">Page 136</p> <p>1 Q. Have you ever seen a document like this</p> <p>2 prior to serving as an expert in this case?</p> <p>3 A. No.</p> <p>4 Q. Is it your understanding that the way that</p> <p>5 this chart works, for lack of a better term -- and</p> <p>6 please, if you don't understand what I'm asking,</p> <p>7 let me know.</p> <p>8 The way this chart works is, there was,</p> <p>9 for instance, for wild house mice, a test done of</p> <p>10 Weitech Device Model 500B.</p> <p>11 And underneath, where we see the</p> <p>12 correlation table, those are all other devices that</p> <p>13 are attempting to be correlated to the device that</p> <p>14 was actually tested. Am I understanding that</p> <p>15 correct?</p> <p>16 A. Yes, that's the way I would describe it.</p> <p>17 Q. Okay. And when I say correlated, I mean,</p> <p>18 specifically, they're comparing the freq -- the</p> <p>19 peak frequency kilohertz.</p> <p>20 MR. FALKOF: I was wondering how you were going</p> <p>21 to finish that sentence.</p> <p>22 BY MR. BARTELA:</p> <p>23 Q. I'll take another swing at that one.</p> <p>24 They're specifically comparing the frequency peak</p>
<p style="text-align: right;">Page 135</p> <p>1 spoke to Mr. Campbell, because you had some</p> <p>2 questions about the technical aspects of the</p> <p>3 devices?</p> <p>4 A. Correct.</p> <p>5 Q. Specifically, the charts that are listed</p> <p>6 on the first couple of pages, is that right?</p> <p>7 A. That's correct.</p> <p>8 Q. So let's take a look at the first couple</p> <p>9 of pages here.</p> <p>10 We see that there are a number of</p> <p>11 correlation tables that are found directly beneath</p> <p>12 a smaller table that lists an efficacy report</p> <p>13 number.</p> <p>14 It gives a device model, it gives a pest</p> <p>15 species that was tested in that efficacy report,</p> <p>16 and it gives the working frequency output, is that</p> <p>17 right?</p> <p>18 A. Yes.</p> <p>19 Q. And so if you'll look through, we have one</p> <p>20 of those for wild house mice, wild Norway rats,</p> <p>21 German cockroaches, greenhouse spider, long-bodied</p> <p>22 cellar spider, and I think that should be it, is</p> <p>23 that right?</p> <p>24 A. Correct.</p>	<p style="text-align: right;">Page 137</p> <p>1 kilohertz of the device that was tested with other</p> <p>2 devices that are branded Weitech B and D and</p> <p>3 Vermin-X. Is that your understanding?</p> <p>4 A. Let me ask you a question back. The</p> <p>5 header table here with the report number</p> <p>6 Device Model 500B has a working frequency output of</p> <p>7 26 to 45. That's what was claimed.</p> <p>8 So my understanding is that all -- this</p> <p>9 list of other models that they tested was to</p> <p>10 compare the frequency peak kilohertz with that</p> <p>11 working frequency output.</p> <p>12 Q. Okay. That's your understanding of what's</p> <p>13 happening on this page?</p> <p>14 A. Yes.</p> <p>15 Q. Okay. And you got that understanding from</p> <p>16 your conversation with Mr. Campbell?</p> <p>17 A. He confirmed -- yes. I thought that was</p> <p>18 the case, but he confirmed that.</p> <p>19 Q. Okay. So is it your understanding that</p> <p>20 there were no actual efficacy tests done of the</p> <p>21 models we find in the table labeled correlation</p> <p>22 table?</p> <p>23 A. I don't know of any.</p> <p>24 Q. Okay. So -- and just so we're clear, for</p>

<p style="text-align: right;">Page 138</p> <p>1 instance, for wild house mice, they just tested for 2 purposes of measuring efficacy Device Model Weitech 3 500B. Is that your understanding? 4 A. That's my understanding. 5 Q. And then, the -- some of the models listed 6 in the correlation table would be Weitech 0540, and 7 then, there's a number of B and D models -- 8 A. Yes. 9 Q. -- and two Vermin-X models. And your 10 understanding is that none of these models were 11 actually tested for efficacy, they were just tested 12 to see what their frequency peak kilohertz was, 13 their voltage magnitude, and then, there's a column 14 labeled wild house mice with an X in it. So they 15 were never actually tested for efficacy? 16 A. That's my understanding. Efficacy on the 17 wild house mice. 18 Q. Right. 19 A. Mouse. 20 Q. So you haven't seen any studies that would 21 demonstrate whether any of the models that are 22 included in the correlation table were actually 23 tested for efficacy, just so I'm understanding you? 24 A. Well, as long as you're -- the word</p>	<p style="text-align: right;">Page 140</p> <p>1 correlation table for wild house mice have 2 different shapes and sizes than the Weitech 500B 3 that was actually tested for efficacy of repelling 4 wild house mice? 5 A. Yes, because I don't -- well, again, I'll 6 qualify. For the efficacy, yes. I don't know 7 whether Weitech 500B was listed in that product 8 spec sheet that I talked about. 9 Q. And it's your opinion, to a scientific 10 degree of certainty, that even though these models 11 included in the wild house mice correlation table 12 weren't specifically tested for their efficacy in 13 repelling, in this instance, wild house mice that 14 they were actually effective to do so? 15 A. That's my opinion, yes. 16 Q. Even though they weren't tested? 17 A. They were tested for frequency peak 18 kilohertz and compared to working frequency output 19 and found to be similar. 20 Q. And they weren't specifically tested, 21 though, for the efficacy in repelling wild house 22 mice? 23 A. Not that I know of. 24 Q. And if you look to the next page -- and</p>
<p style="text-align: right;">Page 139</p> <p>1 efficacy that you're using is associated with the 2 pest, the wild house -- no, I have not. 3 Q. That's a great point. And let me be more 4 specific, just so we're on the same page and the 5 record is clear. 6 So my question is, as far as you know, 7 none of the models that are included in the 8 correlation table we find under wild house mice, 9 other than Weitech 500B, were actually tested to 10 see if they were effective in repelling wild house 11 mice, is that correct? 12 A. That's my understanding. 13 Q. Okay. Do you know if there were 14 differences in shape or size for any of these 15 models that are listed in the correlation table? 16 A. I found out later that there -- well, if 17 you look -- if you go to the spec sheet that we 18 talked about earlier, you can see differences 19 there. I mean, it actually outlines the size and 20 the -- not so much the shape but length, width, 21 height, that sort of thing. 22 Q. Okay. So the -- so you have an 23 understanding as we sit here today that generally, 24 some of these models that are included within the</p>	<p style="text-align: right;">Page 141</p> <p>1 I'm going to try to do this efficiently, so as not 2 to waste your time, Dr. Borth. 3 If you look at the next page, there's the 4 same chart for wild Norway rats? 5 A. Yes. 6 Q. And the following page is a chart, again, 7 for German cockroaches? 8 A. Yes. 9 Q. The next page has a chart for greenhouse 10 spiders and the final chart is long-bodied cellar 11 spiders? 12 A. Yes. 13 Q. Okay. And so it's your understanding that 14 in these charts, the only actual device that was 15 tested for efficacy in repelling the given pest or 16 insect would be the Weitech device model listed at 17 the very top? 18 A. Yes. 19 Q. And then, the corresponding or correlated 20 models that fall below it were only tested to make 21 sure that they had the right frequency output, the 22 right voltage magnitude, is that correct? 23 A. That's my understanding. 24 Q. And they weren't subject to these efficacy</p>

<p style="text-align: right;">Page 142</p> <p>1 tests in terms of repelling the given pest or 2 rodent?</p> <p>3 A. Not that I know of.</p> <p>4 Q. And you didn't -- that didn't cause any 5 concern to you when you were forming your 6 scientific opinion in this case?</p> <p>7 A. A concern, no. It caused me to think 8 about what was actually being tested.</p> <p>9 And the thought process went that if the 10 variable of interest, which in this case is the 11 frequency output, was the same, from a physics 12 standpoint, there's very little variability in 13 physical phenomena.</p> <p>14 There could be a lot of variability in 15 biological phenomena, but when you take the same 16 physical characteristics from one -- from I'll call 17 it the reference unit to the other units, if 18 they're the same, then you would expect to have the 19 same behavior.</p> <p>20 Q. So it's your opinion, just so I'm clear, 21 that once you test a device that emits ultrasonic 22 waves, if you have a similar device that emits 23 frequency peak kilohertz with a similar voltage 24 magnitude, you wouldn't necessarily need to test</p>	<p style="text-align: right;">Page 144</p> <p>1 speaker is shaped differently, it might create a 2 larger area that's touched by ultrasonic waves?</p> <p>3 A. I would not know.</p> <p>4 Q. Or consequently, a smaller area that's 5 actually affected by the ultrasonic waves?</p> <p>6 A. That would be pure speculation.</p> <p>7 Q. And you've never done any scientific 8 testing on ultrasonic pest repellers?</p> <p>9 A. No.</p> <p>10 Q. Or -- let me back up. You've never done 11 any scientific testing on devices that specifically 12 emit ultrasonic waves?</p> <p>13 A. No.</p> <p>14 Q. And so you wouldn't know whether the shape 15 of a given device or a difference in the 16 manufacturing process would affect the actual 17 efficacy of that device in repelling the pest, as 18 represented to consumers, would you?</p> <p>19 MR. FALKOF: Objection as to the form of the 20 question. I think you had two questions in there. 21 One was the device, and then, you said in the 22 manufacturing process?</p> <p>23 BY MR. BARTELA:</p> <p>24 Q. Do you -- Dr. Borth, do you understand my</p>
<p style="text-align: right;">Page 143</p> <p>1 that specific device, you could imply the results 2 from the test of the original device?</p> <p>3 A. You could infer that within reason, I'd 4 say.</p> <p>5 Q. Okay. And earlier this morning, we talked 6 a little bit about -- actually, we talked a lot 7 about your background and education and your 8 scientific knowledge and the base of that 9 knowledge.</p> <p>10 Do you have any scientific training or 11 background in speakers, which I think is a question 12 I asked you earlier?</p> <p>13 A. Speakers being like base, treble, that 14 kind of -- no.</p> <p>15 Q. Speakers being a device that --</p> <p>16 A. Yes. No.</p> <p>17 Q. -- emits sounds.</p> <p>18 A. No, not in front of -- not a speaker, like 19 in front of an audience or a podium.</p> <p>20 Q. So would you know whether the shape of a 21 speaker would affect the way in which ultrasonic 22 waves are emitted from that speaker?</p> <p>23 A. I would not.</p> <p>24 Q. You wouldn't know, for instance, if the</p>	<p style="text-align: right;">Page 145</p> <p>1 question?</p> <p>2 A. Not anymore.</p> <p>3 MR. BARTELA: Okay. I'm going to ask, 4 Elizabeth, if you can read it back for me, please. 5 (Whereupon, the record was read.)</p> <p>6 THE WITNESS: I'm going to tell you -- I'll 7 give you my answer, and if it doesn't meet your 8 needs, you got to reask it.</p> <p>9 The variable that's of importance here is 10 the frequency output or the frequency peak. That 11 is -- that is what has been measured and 12 correlated.</p> <p>13 And so as long as an unknown model would 14 prove that the frequency peak is the same as the 15 reference, I would expect the results in a 16 biological test to be not significantly different.</p> <p>17 BY MR. BARTELA:</p> <p>18 Q. Okay. Fair enough. And the question I'm 19 asking is just a little bit different --</p> <p>20 A. Okay.</p> <p>21 Q. -- which is -- and I'm going to back up 22 and I'll try to be more artful in my question, 23 which is, we have -- I think we've established and 24 we're comfortable that you've never tested an</p>

<p style="text-align: right;">Page 146</p> <p>1 ultrasonic --</p> <p>2 A. No.</p> <p>3 Q. -- device?</p> <p>4 A. You are right.</p> <p>5 Q. Have you ever designed an ultrasonic</p> <p>6 device?</p> <p>7 A. No.</p> <p>8 Q. Okay. And -- so you would agree that you</p> <p>9 don't have any technical or scientific expertise in</p> <p>10 how devices that emit ultrasonic waves for the</p> <p>11 purposes of repelling a pest work?</p> <p>12 A. The inside physics of it, no, but I could</p> <p>13 tell you whether they, quote, work or not based on</p> <p>14 efficacy tests.</p> <p>15 Q. So is your understanding of these devices</p> <p>16 that they output ultrasonic waves to repel a given</p> <p>17 pest --</p> <p>18 A. Yes.</p> <p>19 Q. -- or insect?</p> <p>20 A. Yes.</p> <p>21 Q. Okay. And you don't have any scientific</p> <p>22 or technical expertise that would tell you one way</p> <p>23 or another whether the shape of an ultrasonic pest</p> <p>24 repeller would have any bearing on its efficacy in</p>	<p style="text-align: right;">Page 148</p> <p>1 BY MR. BARTELA:</p> <p>2 Q. That's okay. And all -- and some of these</p> <p>3 devices, at least, from -- based on your review of</p> <p>4 the product specification sheet were in different</p> <p>5 sizes or different shapes, is that correct?</p> <p>6 A. That's correct, yes.</p> <p>7 Q. So you don't know whether they would</p> <p>8 actually be effective in repelling a given pest or</p> <p>9 insect based on this change in shape or size, isn't</p> <p>10 that true?</p> <p>11 A. I did not do the testing, but again, I go</p> <p>12 back to the variable of interest is the frequency</p> <p>13 peak matched to the working frequency output. So</p> <p>14 if those are similar, in my opinion, the efficacy</p> <p>15 results would be the same.</p> <p>16 Q. But you don't know if the shape or size of</p> <p>17 a device would change that outcome, is that</p> <p>18 correct?</p> <p>19 MR. FALKOF: The question has been asked and</p> <p>20 answered now three times, Frank.</p> <p>21 BY MR. BARTELA:</p> <p>22 Q. I'll move on, but yes or no?</p> <p>23 A. The product spec sheet would give you the</p> <p>24 differences in length, width, height, and whatever</p>
<p style="text-align: right;">Page 147</p> <p>1 actually repelling a given pest?</p> <p>2 A. And by shape, if you're talking about the</p> <p>3 outside physical -- what it looks like, length,</p> <p>4 width, height, no, I have no scientific expertise</p> <p>5 to say yes or no.</p> <p>6 Q. Okay. And to go one step further, you</p> <p>7 wouldn't know -- or you wouldn't, rather, have any</p> <p>8 scientific or technical expertise to know whether</p> <p>9 the actual shape of the speaker that's on the</p> <p>10 ultrasonic pest repeller would have any effect on</p> <p>11 its ability to actually repel a given rodent or</p> <p>12 insect or other pest, would you?</p> <p>13 A. Not the shape, no.</p> <p>14 Q. Okay. And as we've gone through the</p> <p>15 correlation table, we've established that other</p> <p>16 than the main Weitech models that are found at the</p> <p>17 top of each category -- of each pest category, the</p> <p>18 correlated devices were not actually tested for</p> <p>19 their efficacy in repelling pests, correct?</p> <p>20 MR. FALKOF: The question has been asked and</p> <p>21 answered. You can answer it again.</p> <p>22 THE WITNESS: You're right. I forget whether</p> <p>23 it should be a yes or no, but you're right.</p> <p>24</p>	<p style="text-align: right;">Page 149</p> <p>1 other differences you want to see.</p> <p>2 Q. And you don't know the effect those</p> <p>3 differences would have on their efficacy in</p> <p>4 actually repelling a given pest or insect, yes or</p> <p>5 no?</p> <p>6 MR. FALKOF: Well, if he can't answer it yes or</p> <p>7 no, he'll give you an answer other than a yes or</p> <p>8 no.</p> <p>9 BY MR. BARTELA:</p> <p>10 Q. Doctor?</p> <p>11 A. I can't answer it yes or no. I --</p> <p>12 MR. FALKOF: You've answered it.</p> <p>13 BY MR. BARTELA:</p> <p>14 Q. Doctor, you've reviewed -- I'm just going</p> <p>15 to lay a foundation here, but you've reviewed,</p> <p>16 obviously, the efficacy reports that are in the</p> <p>17 correlation report, and then, there were some more</p> <p>18 that weren't included in the correlation table, is</p> <p>19 that right?</p> <p>20 A. That's correct.</p> <p>21 Q. And would it be fair to say that at</p> <p>22 times -- and this is to the best of your knowledge.</p> <p>23 We can go through some of these, if you'd</p> <p>24 like, but at times, the researchers would, for</p>

<p style="text-align: right;">Page 150</p> <p>1 instance, test three Weitech devices, and those 2 devices might give varying results in terms of 3 their efficacy in repelling the pest that's being 4 tested, is that fair? 5 A. Yes. 6 Q. And as someone unfamiliar with -- outside 7 of this case, at least, with the use of ultrasonic 8 waves to repel pests and insects, do you have any 9 idea why they would get these varying results? 10 A. No, not off the top of my head. I would 11 have to look at specifics. 12 Q. Fair enough. If you would, Doctor, I'd 13 like to turn in the correlation report to the mice 14 test, which I think should be the first one. 15 A. Okay. I got it. 16 Q. You see that the author is A. Daniel 17 Ashton. I asked you earlier if you knew that name 18 and you said you didn't. Am I -- 19 A. Yes. 20 Q. Am I remembering that correctly? 21 A. Yes. I don't know him. 22 Q. I have a question for you that's going to 23 be found on Page 4 of 20. 24 Do you see they're recounting some of the</p>	<p style="text-align: right;">Page 152</p> <p>1 mice per replicate. 2 Q. Okay. So am I understanding correctly 3 that they performed two tests that each had three 4 mice in them in the test? 5 Is that what they mean by two replicates 6 of three mice? 7 A. Well, a replicate would be exactly the 8 same as another one. So two replicates of three 9 mice per replicate. Yes. And there's -- that's 10 how you get your six mice. 11 Q. Okay. 12 A. Two times three. 13 Q. Are you familiar with the behavioral 14 patterns of mice? 15 And I'm speaking generally. So if you 16 need me to -- you know, you're the entomologist. 17 A. I'm not a rodent expert. 18 Q. Okay. Do you have any training whatsoever 19 dealing with rodents? 20 A. No. 21 Q. Okay. Are you -- so you wouldn't be 22 familiar from a scientific or technical aspect 23 about how a mouse would behave in its environment? 24 A. Not from a scientific, or you know,</p>
<p style="text-align: right;">Page 151</p> <p>1 findings that they've made based on their tests? 2 A. Yes. 3 Q. They say -- and I'm going to read, just so 4 we're on the same page, from the third paragraph. 5 Food consumption and tracking board 6 activity measures both demonstrate a repellency; 7 however, neither food consumption, nor tracking 8 boards were reduced greater than 60 percent. 9 The -- an EPA suggested performance standard for 10 laboratory evaluation of ultrasonic devices. 11 Are you aware of the EPA's suggested 12 performance standard they're talking about here? 13 A. I am not. 14 Q. Okay. Did you do any independent research 15 or ask anybody about this? 16 A. I did. 17 Q. Who did you ask? 18 A. I asked Les Campbell. I went on line and 19 did my own searching trying to find this guideline 20 or whatever they're calling it. And I could find 21 nothing or nobody that knew anything about it. 22 Q. Okay. In this mice test, how many animals 23 were actually tested? 24 A. Six mice per test, two replicates of three</p>	<p style="text-align: right;">Page 153</p> <p>1 technical -- 2 Q. From your experience as a human -- 3 A. Yeah. 4 Q. -- you know how mice are, is that fair? 5 A. Well, I don't know what you mean, but I've 6 seen mice in my house and -- 7 Q. Is it fair to say they run around? 8 A. Yes. 9 Q. They scamper? 10 A. They do. 11 MR. FALKOF: Scamper? 12 BY MR. BARTELA: 13 Q. So if you know, Doctor, would a mouse 14 remain constant in one location or would it move 15 around, if you know? 16 A. I don't know. If we could -- 17 Q. If you'll look to Page 9 of 20 of this 18 report, this is what looks to be one chart. It's 19 broken up into two -- 20 A. Right. 21 Q. -- for purposes of fitting on the page. 22 This is labeled as a mean daily activity index of 23 wild house mice in test apparatus. 24 In your scientific opinion, is this a</p>

<p style="text-align: right;">Page 154</p> <p>1 chart that tracks the movement of the mice between 2 the testing chambers during the actual test? 3 A. That's what I understood it to be, yes. 4 Q. Okay. And if you look at these days that 5 are marked treatment, which would be Day 1 to 6 Day 8 -- 7 A. Yes. 8 Q. -- those would be days that the actual 9 device is being tested on the replicates of mice, 10 is that your understanding? 11 A. That's my understanding. 12 Q. And we see that there's two columns for 13 every day, untreated and treated, right? 14 A. Correct. 15 Q. And I understand that to mean there's a 16 box that's untreated, so it doesn't have the 17 device, and there's a box treated, so it has the 18 device. Is that your understanding? 19 A. That's my understanding. 20 Q. And if you look at these results, you'll 21 see that the mice continued to go into the treated 22 chamber, isn't that right? 23 A. It could be or they never left. 24 Q. Okay. So either way, they either went in</p>	<p style="text-align: right;">Page 156</p> <p>1 expert in rodent behavior? 2 A. I do not. 3 Q. Do you know if he has any expertise in 4 actually testing ultrasonic devices specifically? 5 A. I do not. 6 Q. If you look to Page 11 of 20, there's a 7 protocol, which takes up -- I don't know. I think 8 it's four pages. 9 A. Uh-huh. Yes. 10 Q. Okay. I think I might be missing a page, 11 but anyways, do you know who created this protocol? 12 A. I assume that it was the people at the 13 test facility, BioCenotics, since they're running 14 the test. 15 Q. When -- if you go to Page 3, under 11, 16 other considerations, there's an efficacy criteria 17 towards the bottom of the page. 18 A. Okay. 19 Q. It's Subsection B. 20 A. Yes. 21 Q. It says no efficacy criteria are required 22 for this test. And it goes on to give the EPA 23 standard that we talked about earlier. 24 A. Yes.</p>
<p style="text-align: right;">Page 155</p> <p>1 or just didn't leave? 2 A. They're there. It's a count. They are 3 there. 4 Well, excuse me. This is an activity 5 index. So if -- I think this is the one where they 6 put some tracking powder outside of the entrance or 7 something and tried to count the -- 8 Q. Count the mouse prints? 9 A. Yes. And we'll just leave it at that. I 10 think that's right. 11 Q. Okay. Did you talk to any scientists 12 familiar with rodent behavior to see what these 13 results might mean? 14 A. No. 15 Q. Do you know if Applica had -- or Applica, 16 rather, had a threshold level of efficacy? 17 And if that's confusing and you don't 18 understand what I mean, let me know. 19 A. I think I understand. And I don't know 20 whether they did or not. 21 Q. Okay. Did you ask anybody if they did? 22 A. No. 23 Q. Do you know if A. Daniel Ashton, who's the 24 author of this report -- do you know if he's an</p>	<p style="text-align: right;">Page 157</p> <p>1 Q. So it would appear that -- and this is 2 just if you know, that we don't know what threshold 3 of efficacy Weitech or Applica would have wanted in 4 this test to confirm that these devices worked in 5 actually repelling wild house mice, do we? 6 A. I do not know. 7 Q. Okay. So if there were two replicates of 8 three mice each, that would mean that -- tested on 9 six mice total? 10 A. Yes. 11 Q. Okay. Would you agree that that's a low 12 population total to be tested? 13 A. No. 14 Q. But you don't have any experience -- 15 A. No. I'm not a rodent specialist. 16 Q. Okay. Do you know what habituation is? 17 A. Generally, yes. 18 Q. What is habituation, in your 19 understanding? 20 A. I understand that to be where an organism 21 becomes habituated, acclimated, whatever synonym 22 you want to use to conditions that it's exposed to. 23 Q. So for instance, if there's a jackhammer 24 outside, over time, I might get used to it and not</p>

<p style="text-align: right;">Page 158</p> <p>1 notice it, is that fair?</p> <p>2 A. Yes.</p> <p>3 Q. Is habituation a phenomenon found in all</p> <p>4 creatures or is it creature-specific, if you know,</p> <p>5 Doctor?</p> <p>6 A. I don't know -- I don't have evidence that</p> <p>7 it is true. I would imagine it is, but I can't say</p> <p>8 with 100 percent certainty that it is. I mean,</p> <p>9 logic would tell you that every organism would have</p> <p>10 some habituation level.</p> <p>11 Q. Do you know how long in rats and/or mice</p> <p>12 habituation would take?</p> <p>13 A. No, I don't.</p> <p>14 Q. Was this idea of habituation concerning to</p> <p>15 you at all when you were crafting your expert</p> <p>16 report in this matter?</p> <p>17 A. I knew about it. I read that some of the</p> <p>18 researchers talked about it. Did it affect my</p> <p>19 opinions on whether a device was efficacious or</p> <p>20 not? No.</p> <p>21 Q. Do you think there should have been more</p> <p>22 testing done to account for habituation?</p> <p>23 A. That would be up to the company.</p> <p>24 Q. Perhaps longer testing periods, would that</p>	<p style="text-align: right;">Page 160</p> <p>1 that correct?</p> <p>2 A. Well, I'm looking for it.</p> <p>3 Q. It will be right after the rat test.</p> <p>4 A. Okay. Dated June 1st, 2002, yes.</p> <p>5 Q. Okay. So this test is later in time than</p> <p>6 the 2001 test, obviously, that we talked about</p> <p>7 earlier?</p> <p>8 A. Yes. Well, specifically, under final</p> <p>9 report in this case, it says results are from year</p> <p>10 2001. It was reported in 2002.</p> <p>11 Q. So a better question might be, this -- do</p> <p>12 you take this to be the all-encompassing cockroach</p> <p>13 report for the Weitech devices that were tested?</p> <p>14 A. It was included in the correlation report.</p> <p>15 And so that's what Applica had available to them,</p> <p>16 but it's -- there are other cockroach tests that</p> <p>17 we've talked about.</p> <p>18 Now, some of them were coded. So whether</p> <p>19 they were Weitech or not, I don't know.</p> <p>20 Q. In terms of coming to your opinion that</p> <p>21 Applica had sufficient scientific evidence to</p> <p>22 represent to consumers that this device could repel</p> <p>23 cockroaches, is this specific cockroach test dated</p> <p>24 June 1, 2002 what you relied upon?</p>
<p style="text-align: right;">Page 159</p> <p>1 get to the root of whether there's habituation or</p> <p>2 not?</p> <p>3 A. It would help from a scientific</p> <p>4 standpoint. You could carry it out for a year and</p> <p>5 have better results than when it was done for five</p> <p>6 days.</p> <p>7 Q. And those -- there were -- I'm going to</p> <p>8 take a stab at this so -- there were no long-term</p> <p>9 tests -- efficacy tests of the devices done on any</p> <p>10 of the pests that we've talked about today, which</p> <p>11 would be cockroaches, mice, rats, spiders, ants --</p> <p>12 A. I think.</p> <p>13 Q. -- yellow jackets --</p> <p>14 MR. FALKOF: Objection as to form, but go</p> <p>15 ahead.</p> <p>16 BY MR. BARTELA:</p> <p>17 Q. -- cat fleas?</p> <p>18 A. I think one of them went out to 14 days,</p> <p>19 but I'd to search which one. Most were less than</p> <p>20 14 days.</p> <p>21 Q. I'm going to turn hopefully for the final</p> <p>22 time to talk about cockroaches very briefly.</p> <p>23 So the cockroach test that's included in</p> <p>24 this correlation report is dated June 1st, 2002, is</p>	<p style="text-align: right;">Page 161</p> <p>1 MR. FALKOF: I'm going to object to the</p> <p>2 question. When you say relied upon, I'm not sure I</p> <p>3 understand what you mean.</p> <p>4 BY MR. BARTELA:</p> <p>5 Q. Do you understand what I mean, Doctor?</p> <p>6 A. Again, I would qualify it and say it's not</p> <p>7 the only thing I used.</p> <p>8 Q. So you took into account also the 2001</p> <p>9 report, which showed that cockroaches had kind of</p> <p>10 lived on or been on the device?</p> <p>11 A. I took into account that. I took into</p> <p>12 account the articles that are not included in this,</p> <p>13 some of the Gold research that was published.</p> <p>14 Q. So you relied on Dr. Gold's research?</p> <p>15 MR. FALKOF: I'm going to object to the form of</p> <p>16 the question. Go ahead.</p> <p>17 THE WITNESS: I mean, in part, yes. I've tried</p> <p>18 to take everything in toto.</p> <p>19 BY MR. BARTELA:</p> <p>20 Q. In this cockroach test you're looking at</p> <p>21 now --</p> <p>22 A. Yes.</p> <p>23 Q. -- they changed the design of the</p> <p>24 experiment, is that right?</p>

<p style="text-align: right;">Page 162</p> <p>1 A. I can try to find it, but I think this is 2 the one where the unit, itself, was moved to the 3 top of the enclosure instead of being in the 4 enclosure. If I'm right, then yes, they changed 5 the apparatus that was being used. 6 Q. And just for your reference, it's on 7 Page 8. 8 So we can agree that in this 200 -- what 9 I'm going to call the 2002 test, because it's dated 10 2002. 11 In this 2002 test, they cut a hole in the 12 top of the Plexiglass box, fitted the face of the 13 ultrasonic device into that hole, and then, sealed 14 the hole all the way around with some type of 15 sealant. 16 A. Yes. 17 Q. And that was because in the earlier 18 test -- so we're on the same page, in the earlier 19 test, the device had actually been entirely inside 20 the enclosure and they had found some cockroaches 21 on the device, is that fair? 22 A. I don't know why -- I don't know why they 23 moved it, but your characterization is right, yes. 24 Q. Okay. Do you know if these devices are --</p>	<p style="text-align: right;">Page 164</p> <p>1 BY MR. BARTELA: 2 Q. Okay. I'm talking specifically -- just so 3 we're clear, because I don't want to confuse you, 4 specifically about all of the materials that 5 Applica has that they gave to you and they gave to 6 me in discovery. 7 Are there any cockroach tests in those 8 materials that tests the efficacy of an ultrasonic 9 pest repeller to repel cockroaches in the field, 10 specifically in a way that consumers would use the 11 device? 12 MR. FALKOF: Objection as to form. 13 THE WITNESS: Not cockroaches. 14 BY MR. BARTELA: 15 Q. Okay. And -- but you still concluded -- 16 or opined, rather, in your report that they had 17 sufficient scientific evidence to claim that these 18 devices could repel cockroaches? 19 A. I claimed -- or I opined that the Wei -- B 20 and D models produced a frequency that would repel 21 a cockroach based on the tests that I looked at. 22 Q. Okay. Specifically, on Page 9 of 19 of 23 your report, you say, based upon Finding No. 8, it 24 is my opinion that Applica had sufficient</p>
<p style="text-align: right;">Page 163</p> <p>1 well, strike that. 2 Consumers buy these devices and they plug 3 them into their walls, is that right? 4 A. Yes. 5 Q. And are they instructed that they need to 6 cut a hole in the wall, put the face of the device 7 up to the hole, and seal around it? 8 A. No. 9 Q. So you would agree that this 2002 test, 10 which gives positive results specifically for the 11 CIX 0600 and I think the Transonic 800 was tested 12 in a way that consumers don't use the device, is 13 that fair? 14 A. Yes. It's a laboratory test versus an 15 in field test. 16 Q. And there's no field cockroach study 17 testing the efficacy of the device in a way that 18 consumers would use the device, is that fair? 19 MR. FALKOF: I'm going to object to the form of 20 the question. 21 THE WITNESS: I don't know of any. I would 22 imagine it's out there, but I don't know. I mean, 23 I can't tell you right now that there are any. 24</p>	<p style="text-align: right;">Page 165</p> <p>1 scientific evidence to claim that Model EW406-5P 2 would repel cockroaches when used in accordance 3 with the Use & Care Book, is that -- 4 A. Yes. 5 Q. That's correct? 6 A. That's what I said, yes. 7 Q. Okay. But these devices were never tested 8 in accordance with the Use & Care Book, were they? 9 A. I don't know. I did not see any tests, 10 other than what we've been given. 11 Q. Doctor, how can you reasonably conclude 12 that these devices would repel cockroaches when 13 used in accordance with the Use & Care Book if you 14 haven't seen any tests proving that they would do 15 the same? 16 A. I can reasonably conclude that, because in 17 the laboratory test, they did. And so when you 18 take those results and you put them in a field 19 condition or in a house, they're going to do the 20 same thing. 21 Q. Okay. Can we agree that -- and let me 22 know if you disagree, that the 2000 cockroach test, 23 in which the entire device was placed in the 24 Plexiglass box is more similar to how a consumer</p>

<p style="text-align: right;">Page 166</p> <p>1 would use the device, rather than the 2002 test, in 2 which the face of the device was fitted into a hole 3 and that hole was sealed with some type of sealant? 4 A. I'd agree with that. 5 Q. Okay. And in that test, it showed largely 6 that the cockroaches accumulated on the devices, is 7 that correct? 8 MR. FALKOF: Object to the form of the 9 question. 10 THE WITNESS: We saw photographs with 11 cockroaches on devices. 12 BY MR. BARTELA: 13 Q. Okay. But it's still your opinion that 14 these devices will repel cockroaches when used in 15 accordance with the Use & Care booklet? 16 A. Yes. 17 Q. If you turn to the -- I guess it's the 18 greenhouse spiders test that's included within the 19 correlation report. 20 A. That would be -- it's near the back, 21 right? 22 Q. Yeah. It's right after the cockroach 23 test. I don't know if that helps. 24 A. What are we looking for?</p>	<p style="text-align: right;">Page 168</p> <p>1 I'm wrong, you make mention that the raw data is 2 missing, but you tried to back out the numbers of 3 spiders that were involved in the test, right? 4 A. Correct. Yes. 5 Q. In your opinion as a scientist, when 6 you're doing -- when you're compiling a report like 7 this, it's good laboratory practice to include all 8 the data so that the audience knows exactly what 9 you're talking about? 10 A. First, to make sure I understand, when you 11 use the term good laboratory practice, that is 12 specific -- has specific protocols under the 13 acronym GLP. 14 This was not a GLP study. I'm sure it 15 wasn't ever designed to be. If you're asking 16 whether, in a research report, you would include 17 raw data, sometimes yes, sometimes no. 18 Q. Okay. I'd like to focus on the latter, 19 which would just be good sound practice under a 20 scientific method. 21 A. Okay. 22 Q. Is it your opinion that it would be a 23 better practice to include the raw data here? 24 A. It would advantageous to somebody doing</p>
<p style="text-align: right;">Page 167</p> <p>1 Q. The greenhouse spiders test. 2 A. Maybe these aren't in order anymore. 3 Pardon me. 4 Q. I can give you my copy. 5 MR. FALKOF: Is it just before the long -- 6 MR. BARTELA: Yeah. It's right after 7 cockroaches and just before long-bodied spiders. 8 THE WITNESS: Yeah, but my holes aren't lining 9 up anymore. 10 MR. FALKOF: Let me see what you have. 11 THE WITNESS: Oh. It's under a pad of paper. 12 MR. BARTELA: Thanks, Brad. 13 BY MR. BARTELA: 14 Q. I just have a couple brief questions about 15 this. So obviously, again, you reviewed this 16 study? 17 A. Yes. 18 Q. I think, in your report, you make mention 19 that -- let's do it this way. Strike that. 20 If you go to what's listed as Page 3, 21 there are -- there's a table that has some 22 mathematical computations on it. This was 23 obviously the subject of some discussion. 24 I think in your report, and correct me if</p>	<p style="text-align: right;">Page 169</p> <p>1 what I was trying to do -- 2 Q. Right. 3 A. -- to have the raw data. 4 Q. If we have the raw data, then we don't 5 have to guess, is that -- 6 A. That's correct. 7 Q. Okay. And whether the Court were to 8 accept Dr. Gold's opinion on these numbers or your 9 opinion on these numbers, we don't have the raw 10 data to know exactly what these numbers are, is 11 that fair? 12 A. No, you don't; however, I -- the way I 13 back-calculated it, I think I did it correctly, and 14 still, you're -- in this case, you go to the 15 objective, which was not a laboratory study. This 16 is under natural room conditions. 17 And that brings up the whole subject of, 18 you take what's there, which we do. 19 Q. This study was done in greenhouse rooms. 20 A. Yes. That's what it says. 21 Q. And it says it was done in one 22 500-square-foot room and two 625-square-foot rooms. 23 A. That's what it says, yes. 24 Q. A 500-square-foot room would be 25 by 25?</p>

<p style="text-align: right;">Page 170</p> <p>1 No?</p> <p>2 A. If you had a calculator, you take the</p> <p>3 square root of 500 and that's -- if it's square.</p> <p>4 Q. You don't know?</p> <p>5 A. But we don't even know that. That's the</p> <p>6 point I made in the report. We don't know whether</p> <p>7 it's rectangular, square, circular.</p> <p>8 Q. Do we know if there are any obstructions</p> <p>9 in this room?</p> <p>10 A. No. It doesn't say that it is or isn't.</p> <p>11 Q. And each room was used both as an</p> <p>12 experiment room and control?</p> <p>13 A. Let me make sure. I think that's correct,</p> <p>14 but let me make sure. Yes.</p> <p>15 Q. So as far as we know from reading this</p> <p>16 report -- I want to make sure we're on the same</p> <p>17 page. As far as we know, we have three rooms?</p> <p>18 A. Yes.</p> <p>19 Q. We don't know if there's any obstructions</p> <p>20 and we don't know what shape they are?</p> <p>21 A. Correct.</p> <p>22 Q. And -- but we do know, in each room,</p> <p>23 there's an ultrasonic pest repeller on one side of</p> <p>24 the room or in one portion of the room, is that</p>	<p style="text-align: right;">Page 172</p> <p>1 or not. And they got the results they got.</p> <p>2 Q. Did you call anybody to ask them about the</p> <p>3 shape of the room, if there's obstructions in the</p> <p>4 room, anything you were confused about in this</p> <p>5 study?</p> <p>6 A. No.</p> <p>7 MR. FALKOF: Objection as to the form.</p> <p>8 BY MR. BARTELA:</p> <p>9 Q. What's your understanding of how far the</p> <p>10 ultrasonic waves travel from the Black & Decker</p> <p>11 branded pest repellents?</p> <p>12 A. I do not have an understanding.</p> <p>13 Q. Okay. You'd agree with me that they don't</p> <p>14 tell consumers that on the packaging, do they?</p> <p>15 A. Indirectly, they do.</p> <p>16 Q. And how is that?</p> <p>17 A. Indirectly, they say, for an average size</p> <p>18 room, you use one model, and for a large size room,</p> <p>19 you use another model.</p> <p>20 Q. Do they give the consumer any idea of what</p> <p>21 they mean by average size or large size room?</p> <p>22 A. I did not see that in the packaging.</p> <p>23 Q. In the -- and we can go back through</p> <p>24 these, if you'd like, but specifically, the</p>
<p style="text-align: right;">Page 171</p> <p>1 fair?</p> <p>2 A. Correct.</p> <p>3 Q. And on the other side or in the other</p> <p>4 portion, there's no ultrasonic pest repeller?</p> <p>5 A. No, we don't know that. I think the</p> <p>6 opposite. I think there was an ultrasonic unit.</p> <p>7 It just wasn't turned on, which would have been the</p> <p>8 control.</p> <p>9 Q. Okay. So you think it's maybe plugged in</p> <p>10 but just not turned on or just is existing there in</p> <p>11 some fashion, is that fair?</p> <p>12 A. Yes. Yes.</p> <p>13 Q. Would you agree that in this instance,</p> <p>14 there's no true control here?</p> <p>15 A. No, I would not.</p> <p>16 Q. Okay. So you don't think, in an</p> <p>17 unobstructed room, the ultrasonic waves wouldn't</p> <p>18 have traveled all the way to the other side, and</p> <p>19 therefore, affected the control side of the room?</p> <p>20 A. I don't know. My opinion is no, it</p> <p>21 wouldn't, because if you go back to the biology and</p> <p>22 the purpose of the study, the spiders had equal</p> <p>23 opportunity to move wherever they wanted to in the</p> <p>24 room regardless of whether the device was turned on</p>	<p style="text-align: right;">Page 173</p> <p>1 cockroach tests, we know that the boxes were four</p> <p>2 by four by four.</p> <p>3 So I would take that to mean four feet</p> <p>4 tall, four feet wide, and four feet deep, is that</p> <p>5 right?</p> <p>6 A. I would, too, yes.</p> <p>7 Q. So that would be a -- essentially, a</p> <p>8 16-square-foot room that's four feet tall?</p> <p>9 A. Yes.</p> <p>10 Q. Have you ever been in a house that has a</p> <p>11 16-square-foot room that's four-foot tall?</p> <p>12 A. No.</p> <p>13 Q. I want to talk about your fifth opinion</p> <p>14 you make in your report. Let me know when you get</p> <p>15 there. It's Page 9 of 19.</p> <p>16 A. Oh, that helps. Okay. Fifth opinion.</p> <p>17 Q. Yeah. And this opinion deals with the</p> <p>18 term other pests.</p> <p>19 A. Yes. Yes.</p> <p>20 MR. BARTELA: Do you want to go off the record?</p> <p>21 (Discussion off the record.)</p> <p>22 THE WITNESS: Okay. 9 of 19?</p> <p>23 BY MR. BARTELA:</p> <p>24 Q. Yes, sir.</p>

<p style="text-align: right;">Page 174</p> <p>1 A. Okay. I'm there.</p> <p>2 Q. It's the fifth opinion, which deals with</p> <p>3 other pests.</p> <p>4 A. Yes.</p> <p>5 Q. Okay. And so as I see it, it's your</p> <p>6 opinion that Applica had sufficient scientific</p> <p>7 evidence to claim the model, which is EW406-5P</p> <p>8 would repel other pests, and then, you give several</p> <p>9 examples.</p> <p>10 Norway rats, house crickets, Imperil</p> <p>11 scorpions, and yellow jackets when used in</p> <p>12 accordance with the Use & Care Book?</p> <p>13 A. Yes.</p> <p>14 Q. Okay. Anywhere on the packaging, does it</p> <p>15 tell consumers or anybody what they mean by other</p> <p>16 pests?</p> <p>17 A. No.</p> <p>18 Q. What's the most common insect in the</p> <p>19 United States?</p> <p>20 A. It would be a beetle.</p> <p>21 Q. A beetle? Okay. How about an ant? Is</p> <p>22 that pretty common?</p> <p>23 A. Yes, cer -- yes, in the gener -- when you</p> <p>24 use ants, yes.</p>	<p style="text-align: right;">Page 176</p> <p>1 A. No.</p> <p>2 Q. Are there specialists for flies --</p> <p>3 A. Yes, there are.</p> <p>4 Q. -- just like for ants? This device</p> <p>5 doesn't work for ants, does it?</p> <p>6 A. The test that I looked at showed that it</p> <p>7 did not have a repellency effect on those -- those</p> <p>8 ant species that they tested.</p> <p>9 Q. Okay. And it doesn't work on flies</p> <p>10 either, does it?</p> <p>11 A. On the fly species that they tested, under</p> <p>12 those experimental conditions, it did not show a</p> <p>13 repellency effect.</p> <p>14 Q. What about fleas? Are fleas a common</p> <p>15 insect you might see in the United States?</p> <p>16 A. A subjective term, common. They're there,</p> <p>17 but I don't think -- if you ask Terminix or Orkin</p> <p>18 whether they'd rank in the top 10, maybe top 10,</p> <p>19 not top 5.</p> <p>20 Q. And what's your recollection about whether</p> <p>21 these devices are effective in repelling fleas?</p> <p>22 A. Fleas did not -- my recollection is, it</p> <p>23 did not show any treatment effect from Subi's</p> <p>24 tests, nor Phil Koehler's tests from Florida.</p>
<p style="text-align: right;">Page 175</p> <p>1 Q. Have you had ants in your house before?</p> <p>2 A. Yes.</p> <p>3 Q. I presume when you see an ant, you can</p> <p>4 tell us what it is?</p> <p>5 A. There are specialists in ants that would</p> <p>6 do a better job than I, but I could get close</p> <p>7 maybe.</p> <p>8 Q. I see an ant and I just think there's an</p> <p>9 aunt. Okay. So --</p> <p>10 A. Many different kinds.</p> <p>11 Q. So we can agree that ants are fairly</p> <p>12 common in the United States households?</p> <p>13 A. Yes.</p> <p>14 Q. Okay. What about -- and another term I'm</p> <p>15 going to use generically, because I don't have the</p> <p>16 education you do is a fly.</p> <p>17 A. Okay.</p> <p>18 Q. Would a fly be a common thing to see in a</p> <p>19 United States household?</p> <p>20 A. In an urban environment, yes.</p> <p>21 Q. Okay. There's a lot of different kinds of</p> <p>22 flies?</p> <p>23 A. Lots.</p> <p>24 Q. Do you know how many?</p>	<p style="text-align: right;">Page 177</p> <p>1 Q. And they don't -- Applica, rather --</p> <p>2 strike that.</p> <p>3 The packaging doesn't tell consumers that</p> <p>4 these won't work on common household insects like</p> <p>5 ants or flies, do they?</p> <p>6 MR. FALKOF: I'm going to object to the</p> <p>7 question. When you say the packaging, remember,</p> <p>8 over the years, the packaging changed. So which</p> <p>9 packaging are you referring to?</p> <p>10 MR. BARTELA: Let me -- that's fine.</p> <p>11 BY MR. BARTELA:</p> <p>12 Q. And I'll rephrase, Doctor, so we can be</p> <p>13 specific, because I don't -- I want you to be clear</p> <p>14 about what I'm asking.</p> <p>15 Have you seen Deborah Galoski's packaging</p> <p>16 in this case?</p> <p>17 A. I've seen what was presented as</p> <p>18 Deborah Galoski's package, yeah, the Xerox</p> <p>19 photocopies of it.</p> <p>20 Q. Do you have reason to believe that's not</p> <p>21 actually her packaging?</p> <p>22 A. Not -- I have no reason to believe it's</p> <p>23 not, no.</p> <p>24 Q. And on that packaging, it just -- it</p>

<p style="text-align: right;">Page 178</p> <p>1 purports that the device will drive out spiders, 2 cockroaches, mice, and other pests, is that right? 3 A. Correct. 4 Q. And nowhere on that specific packaging 5 does it tell the consumer that the device won't 6 work on ants? 7 A. It does not. 8 Q. Or flies? 9 A. It does not. 10 Q. But it does tell the consumer that the 11 device will drive out some pests, which it 12 identifies as spiders, cockroaches, mice, right? 13 A. Those words are on there, yes. 14 Q. Drive out. And you understand drive out 15 to mean it will drive them out of the house? 16 MR. FALKOF: Objection as to the form of the 17 question. 18 THE WITNESS: That's a matter of one's opinion, 19 you know, what you think of when you think of the 20 word drive and drive out. And I know Dr. Gold 21 thought that it was -- it meant drive them out of 22 the house. 23 In my opinion, it's a subjective word. I 24 could say drive them from Point A to Point B an</p>	<p style="text-align: right;">Page 180</p> <p>1 Q. Okay. In Dr. Subi's test of Imperil 2 scorpions, he tested the device on one scorpion at 3 a time, is that accurate? 4 A. I'd have to refresh my memory. 5 Q. Okay. Doctor, let's -- 6 MR. BARTELA: We'll mark these -- we can mark 7 one 8 and one 9. 8 (Whereupon, Borth Deposition 9 Exhibit 8 and Exhibit 9 were 10 marked for identification.) 11 BY MR. BARTELA: 12 Q. So we should be looking now at Borth 8, 13 which is a copy of the response of Imperil scorpion 14 to ultrasound emitted from CIX 0600. Are we on the 15 same page? 16 A. Yes. 17 Q. If you turn to Page 2, there is a test 18 procedures paragraph. 19 A. Okay. 20 Q. I'm going to read just the first 21 sentence -- 22 A. Okay. 23 Q. -- two sentences. For each ultrasonic 24 device, six separate tests were conducted. In each</p>
<p style="text-align: right;">Page 179</p> <p>1 inch away. 2 BY MR. BARTELA: 3 Q. And what's your -- 4 A. So it's a subjective -- 5 Q. What's your subjective understanding of -- 6 A. If it moves, it's driven. 7 Q. So you think people would buy this product 8 to drive the pests from one room to another? 9 A. I don't know why they buy it. 10 Q. Would you buy it? 11 A. Would I buy it? I have not bought one. I 12 don't have pests. 13 Q. That's because you're the bug doctor. In 14 your Opinion No. 5, you mention Imperial scorpions, 15 which sound terrifying. 16 A. Imperil. 17 Q. Imperil. Okay. Imperil scorpions. Where 18 would you find Imperil scorpions in the United 19 States? 20 A. I'll tell you, they're not in Indiana that 21 I know of. I have to believe they'd be in Kansas 22 where Dr. Subi tested them. 23 Q. Should I be worried about them in Ohio? 24 A. I do not think so.</p>	<p style="text-align: right;">Page 181</p> <p>1 test, a scorpion was released into one of the 2 paired enclosures and allowed to acclimate to the 3 environment for 24 hours. 4 So my understanding is that they tested 5 one scorpion at a time. Is that your 6 understanding? 7 A. Well, that's how I read it, yes. 8 Q. Do you have any technical or scientific 9 familiarity with Imperil scorpions? 10 A. Not that species. 11 Q. Okay. Do you know if scorpions are 12 stationary creatures or do they move around a lot? 13 A. I've seen scorpions move around. It 14 depends on the time of day and other environmental 15 factors. 16 Q. Do you know from this study if they put 17 the scorpion in the box that had the device or 18 didn't have an active device? 19 A. To start out with, during the acclimation 20 period, you mean? 21 Q. Yeah, to start out with. 22 A. I can't find that it says that. If you 23 give me time to read the whole thing, I might be 24 able to but -- I don't know -- let's see.</p>

<p style="text-align: right;">Page 182</p> <p>1 No, I don't see any verbiage that tells us</p> <p>2 where the scorpion -- in which unit the --</p> <p>3 enclosure, I guess, the scorpion was placed.</p> <p>4 Q. And -- but this study ultimately concludes</p> <p>5 that the device is effective in repelling scorp --</p> <p>6 Imperil scorpions?</p> <p>7 A. That's the last sentence, yes.</p> <p>8 Q. So your opinion that the -- that other</p> <p>9 pests would encompass Imperil scorpions is based on</p> <p>10 six replicates of one scorpion, so six scorpions</p> <p>11 total, is that correct?</p> <p>12 A. Yes.</p> <p>13 Q. And you don't think that that's a low</p> <p>14 population total for a scientific study?</p> <p>15 A. No, because I -- the little bit I know</p> <p>16 about scorpions tells me they're cannibalistic. So</p> <p>17 if you put more than one in an enclosure, they're</p> <p>18 going to fight each other to death. So you don't</p> <p>19 do that.</p> <p>20 Q. That's fair enough but -- and what I'm</p> <p>21 asking is, you're comfortable saying, in your</p> <p>22 scientific opinion -- or it is, rather, your</p> <p>23 scientific opinion that these devices could</p> <p>24 effectively repel scorpions based on a test in</p>	<p style="text-align: right;">Page 184</p> <p>1 A. -- as I understand it. For each ult --</p> <p>2 I'm reading. For each ultrasonic device, six</p> <p>3 separate tests were conducted. In each test, a</p> <p>4 scorpion adult was released into one of the paired</p> <p>5 enclosures and allowed to acclimate.</p> <p>6 So you're right, I do not know that there</p> <p>7 were six scorpions used.</p> <p>8 Q. There was a couple yellow jacket tests. I</p> <p>9 don't -- I just want to ask you some general</p> <p>10 questions about them. Do you remember reviewing</p> <p>11 those tests --</p> <p>12 A. Yes.</p> <p>13 Q. -- generally?</p> <p>14 A. Yeah.</p> <p>15 Q. Those tests were performed outside?</p> <p>16 A. Yes.</p> <p>17 Q. Okay. The Use & Care booklet, does it</p> <p>18 advise if the device should be used inside?</p> <p>19 A. I'd have to refresh my memory. I believe</p> <p>20 it does. It probably says not for use outdoors.</p> <p>21 Q. So again, here's an instance of a test</p> <p>22 that's performed -- or was performed, rather, in</p> <p>23 contradiction with the Use & Care booklet?</p> <p>24 A. Oh, in that -- if the Use & Care booklet</p>
<p style="text-align: right;">Page 183</p> <p>1 which they looked at six scorpions?</p> <p>2 A. Yes.</p> <p>3 Q. And from a scientific standpoint, you</p> <p>4 don't have any problem with the low population</p> <p>5 total of that test?</p> <p>6 A. No. I would assume that the scorpions</p> <p>7 that they used were representative of the</p> <p>8 population of Imperil scorpions. No reason to have</p> <p>9 more.</p> <p>10 Q. In your background with testing</p> <p>11 chemical-based repellents, would you have tested</p> <p>12 something on six insects and concluded that it was</p> <p>13 work -- it worked and it was effective in repelling</p> <p>14 those specific insects?</p> <p>15 A. It would depend on the insect.</p> <p>16 Q. Okay. So you don't think, in your</p> <p>17 previous experience, you would have said six is</p> <p>18 just too low of a population total to know if this</p> <p>19 thing works or not?</p> <p>20 A. Well, there were six replicates.</p> <p>21 Q. Of one -- right, of one scorpion each.</p> <p>22 A. They didn't use the same scorpion over and</p> <p>23 over --</p> <p>24 Q. Do you know that?</p>	<p style="text-align: right;">Page 185</p> <p>1 says what I think it says, not to be used outdoors,</p> <p>2 yes, this would be not a test that they would use</p> <p>3 to support the location of the device.</p> <p>4 Q. But you still concluded that based on this</p> <p>5 yellow jacket finding, yellow jackets could be</p> <p>6 another pest that could be repelled, even though</p> <p>7 they were tested without -- even though -- scratch</p> <p>8 that.</p> <p>9 Even though they were tested in a</p> <p>10 contradictory fashion to the instructions in the</p> <p>11 Use & Care booklet?</p> <p>12 A. Yes. In my opinion, it would be even more</p> <p>13 effective if the yellow jackets were indoors.</p> <p>14 Q. But you haven't seen an indoor test?</p> <p>15 A. I have not seen an indoor test for yellow</p> <p>16 jackets.</p> <p>17 Q. So that's a guess then?</p> <p>18 A. Yes.</p> <p>19 MR. BARTELA: I do want to mark -- oh, we</p> <p>20 already marked it.</p> <p>21 BY MR. BARTELA:</p> <p>22 Q. I'd like to refer you to Borth 6. And</p> <p>23 this is a Norway rat study --</p> <p>24 A. Okay.</p>

<p style="text-align: right;">Page 186</p> <p>1 Q. -- that was done by Victor for their Sonic 2 PestChaser device -- 3 A. Okay. 4 Q. -- okay? So you listed this as one of the 5 materials you relied upon in your -- in coming to 6 the conclusions in your report. 7 A. Yes. 8 Q. Obviously, this does not test the Black & 9 Decker branded products, is that right? 10 A. Correct. 11 Q. Did you look to see if the kilohertz 12 and/or voltage magnitude matched up to the Black & 13 Decker branded devices? 14 A. No. It's not stated -- not listed. 15 Q. So in this test, they conclude at the 16 bottom of Page 7 of 9 -- they say that -- let's 17 actually look at the next page, because I think the 18 next page is the actual conclusion to the test. 19 Page 8, there's a section labeled 20 discussion and conclusions. 21 A. Yes. 22 Q. One of the conclusions is that -- and 23 correct me if I'm wrong. 24 My understanding is that the rats</p>	<p style="text-align: right;">Page 188</p> <p>1 A. Hypothetically. Okay. 2 Q. And you go and pick out some type of pest 3 repellent mechanism -- 4 A. Whatever. 5 Q. -- application, whatever it might be? 6 A. Whatever. Okay. 7 Q. And you utilize it in the living room, 8 where you know the rats are. 9 A. Okay. 10 Q. And you continue over time to see -- I 11 don't know. Chew marks from the rats, droppings 12 from the rats, evidence that the rats are still 13 coming into that room. 14 Would you consider that repellent you were 15 using effective? 16 A. No. 17 Q. Okay. 18 A. As a consumer. 19 Q. As a consumer. Okay. And do you have a 20 different opinion as an expert? 21 A. Well, if it was -- if I was looking at it 22 as -- from a scientific viewpoint, I would ask 23 many, many more questions, where are the rats 24 coming, what time of day, why are -- your</p>
<p style="text-align: right;">Page 187</p> <p>1 continued to go into the test room and continued to 2 eat food from the test room and leave droppings in 3 the test room. Is that your understanding? 4 A. It looks that way, yes. 5 Q. And so I'm specific, when I say test room, 6 I mean -- 7 A. The one -- 8 Q. Oh. Go ahead. 9 A. The one with the ultrasonic device on. 10 Q. Okay. If you had a house, hypothetically, 11 which I'm sure you do, a very nice one in 12 Indianapolis, I'm sure, and in that house, there 13 were rats and the rats continued to come into a 14 room in which you had utilized some type of pest 15 repellent, would you consider that effective? 16 MR. FALKOF: I'm going to object to the form of 17 the question. 18 THE WITNESS: Are you asking if I would have an 19 ultrasonic device in my room for -- 20 BY MR. BARTELA: 21 Q. I'm talking generally. If -- and I'll 22 back up so you can understand where I'm going. 23 Hypothetically, you have rats in your 24 living room.</p>	<p style="text-align: right;">Page 189</p> <p>1 hypothetical, why are these repellents not doing 2 what they're supposed to do. There should be a 3 reason. 4 Q. And when you see results like this one in 5 the Victor test, where the rats are continuing to 6 go into the test room, continuing to eat from the 7 test room, and continuing to leave droppings from 8 the test room, did you ask yourself those exact 9 questions? 10 A. No. 11 Q. So you didn't question the results of this 12 test at all? 13 A. No, I didn't. I took it at face value. 14 And -- 15 Q. And face value is you're just -- 16 A. Well -- 17 MR. FALKOF: Wait for a question. 18 BY MR. BARTELA: 19 Q. You're just relying on the conclusion that 20 there was a trend of -- 21 A. That's exactly right. 22 Q. Okay. 23 A. A trend of reduced activity in the test 24 room compared to the alternate room, because --</p>

<p style="text-align: right;">Page 190</p> <p>1 well, this one isn't even the Weitech thing. So --</p> <p>2 Q. Would you like to look at the Weitech?</p> <p>3 A. If you want to.</p> <p>4 MR. FALKOF: I think we did earlier.</p> <p>5 MR. BARTELA: Did we?</p> <p>6 MR. FALKOF: Yeah.</p> <p>7 MR. BARTELA: Oh.</p> <p>8 BY MR. BARTELA:</p> <p>9 Q. Well, I guess my broader point, just to</p> <p>10 tie a bow on it, is this.</p> <p>11 When you're seeing varying results in</p> <p>12 these tests we've gone through all day where that</p> <p>13 happened, are -- did you question the efficacy of</p> <p>14 the devices at any point, seeing this evidence that</p> <p>15 it didn't work in some circumstances on some</p> <p>16 creatures?</p> <p>17 A. Well, it's true in this case that there's</p> <p>18 a trend. There's now statistical differences for</p> <p>19 Victor, but Victor is not the subject of the claim.</p> <p>20 So I looked at it as one of these other</p> <p>21 pieces of evidence and it could be lumped under</p> <p>22 that category of other pests. It's not</p> <p>23 specifically named.</p> <p>24 Q. Did you do any of your own independent</p>	<p style="text-align: right;">Page 192</p> <p>1 were still listed for sale on, for instance,</p> <p>2 overstock.com?</p> <p>3 A. No.</p> <p>4 Q. Or eBay maybe?</p> <p>5 A. No, but what I understand Google to do,</p> <p>6 when you put it in, it's going to bring up -- it</p> <p>7 will bring up a lot of things.</p> <p>8 Q. Sure.</p> <p>9 A. And I didn't go to Page 2, Page 3, Page 4</p> <p>10 to see if they were there.</p> <p>11 Q. So in terms of customer reviews, you went</p> <p>12 specifically to Amazon?</p> <p>13 A. Just to that particular --</p> <p>14 Q. Because you knew that they -- that the</p> <p>15 reviews were there based on your conversation with</p> <p>16 counsel?</p> <p>17 A. Correct.</p> <p>18 Q. Okay. Did you attempt to contact any of</p> <p>19 the commenters on the Amazon reviews?</p> <p>20 A. No. As I -- no. I think many were aged,</p> <p>21 historic. The answer is no.</p> <p>22 Q. Do you know the origin of any of these</p> <p>23 reviews that you looked at?</p> <p>24 A. Just what you see on the Amazon thing.</p>
<p style="text-align: right;">Page 191</p> <p>1 statistical analyses of any of the data we've</p> <p>2 looked at that's included in the reports?</p> <p>3 A. No. There was -- no, I didn't.</p> <p>4 Q. I want to talk next, Doctor, about your</p> <p>5 eighth opinion that's related to some Amazon</p> <p>6 results.</p> <p>7 A. Okay.</p> <p>8 Q. So at a certain point, you looked up</p> <p>9 Black & Decker branded ultrasonic pest repellers on</p> <p>10 Amazon. Am I understanding that correctly?</p> <p>11 A. Yes.</p> <p>12 Q. Did anyone tell you to go look at those</p> <p>13 reviews?</p> <p>14 A. They didn't tell me. They -- Mr. Falkof</p> <p>15 told me that they were there.</p> <p>16 Q. Okay. So he tells you that they're there,</p> <p>17 and then, you go and look at them?</p> <p>18 A. Yes.</p> <p>19 Q. Okay. Did you do a general Internet</p> <p>20 search of Black & Decker branded pest repellers to</p> <p>21 look at reviews on any other websites other than</p> <p>22 Amazon?</p> <p>23 A. No.</p> <p>24 Q. So you didn't check to see if maybe they</p>	<p style="text-align: right;">Page 193</p> <p>1 They give their -- maybe even initials. I don't</p> <p>2 even know if they give their full names.</p> <p>3 Q. Do you -- are you aware of whether or not</p> <p>4 Amazon reviews can be left by computer programs</p> <p>5 programmed to review products?</p> <p>6 A. I am not aware. It would not surprise me;</p> <p>7 however, I qualify this in saying, whatever this</p> <p>8 means to Amazon, these were, quote, verified</p> <p>9 purchasers.</p> <p>10 I take that to mean that Amazon, in some</p> <p>11 way, verified that it wasn't a robot doing it, it</p> <p>12 was a purchaser.</p> <p>13 Q. Are you aware of a lawsuit Amazon filed</p> <p>14 against a company called fiverr.com?</p> <p>15 A. I am not.</p> <p>16 Q. And that -- and just I'll purport to let</p> <p>17 you know that in that lawsuit, Amazon sued about</p> <p>18 1,300 individuals, who had charged money to leave</p> <p>19 reviews on product listing pages. Are you aware of</p> <p>20 that cottage industry?</p> <p>21 A. Not at all.</p> <p>22 Q. Okay. Do you have any reason to -- strike</p> <p>23 that.</p> <p>24 You don't know one way or the other where</p>

<p style="text-align: right;">Page 194</p> <p>1 these reviews came from?</p> <p>2 A. Not for certain, no.</p> <p>3 Q. Just that they exist on amazon.com?</p> <p>4 A. That's right. And that's why I stated it</p> <p>5 the way I did.</p> <p>6 Q. Did you endeavor to conduct any type of</p> <p>7 consumer survey?</p> <p>8 A. No.</p> <p>9 Q. Do you have any experience conducting</p> <p>10 consumer surveys?</p> <p>11 A. Not consumers. Well, long ago in my past,</p> <p>12 I -- for a project in statistics, I had to do some</p> <p>13 survey work but --</p> <p>14 Q. Was that when you were in school still?</p> <p>15 A. Yeah. Yes.</p> <p>16 Q. You were doing your Ph.D. work maybe?</p> <p>17 A. Yeah. Probably even masters. Survey is a</p> <p>18 whole discipline in itself.</p> <p>19 Q. You would agree that when you are</p> <p>20 constructing a survey, you have to be aware of the</p> <p>21 bias that your questions might --</p> <p>22 A. Most certainly.</p> <p>23 Q. Okay. And that bias can influence</p> <p>24 whoever's taking the survey to answer one way or</p>	<p style="text-align: right;">Page 196</p> <p>1 Q. So you gave some weight to this?</p> <p>2 A. Yes. It was part of the whole package.</p> <p>3 Q. Even --</p> <p>4 A. Exactly.</p> <p>5 Q. Okay. I didn't mean to step on your toes</p> <p>6 there.</p> <p>7 Even though you don't know where the</p> <p>8 reviews came from?</p> <p>9 A. I don't know geographically where they</p> <p>10 came from. I know they were on an Amazon site.</p> <p>11 Q. And you don't know if they came from real</p> <p>12 people --</p> <p>13 A. I do.</p> <p>14 Q. -- or a computer program?</p> <p>15 A. I do not know for certain.</p> <p>16 Q. Okay. Earlier, we talked a little bit</p> <p>17 about good laboratory practices and not in the</p> <p>18 specific sense but in the general sense.</p> <p>19 A. Okay.</p> <p>20 Q. Is it, in your experience, a good</p> <p>21 scientific practice to use a control when you're</p> <p>22 doing an experiment?</p> <p>23 A. Always.</p> <p>24 Q. In your opinion, what's the purpose of a</p>
<p style="text-align: right;">Page 195</p> <p>1 the other?</p> <p>2 A. Yes.</p> <p>3 Q. Okay. So you'd agree that to properly</p> <p>4 understand how consumers feel about the Black &</p> <p>5 Decker branded ultrasonic products, a non-biased</p> <p>6 survey might be a better way to do it than looking</p> <p>7 at Amazon results?</p> <p>8 A. If you wanted to know that, yes, this --</p> <p>9 yes.</p> <p>10 Q. Well, you wanted to know it, right? I</p> <p>11 mean --</p> <p>12 A. Well --</p> <p>13 Q. -- you put it in your report?</p> <p>14 A. I called this an extra data point. It's a</p> <p>15 point of interest.</p> <p>16 It's not something that I valued very</p> <p>17 heavily, other than to simply mention that it was</p> <p>18 there and it gives a different perspective for what</p> <p>19 it's worth from these verified purchasers.</p> <p>20 Q. Right. And that's fair. You do say it's</p> <p>21 an extra data point.</p> <p>22 You also say but certainly not completely</p> <p>23 discounted either.</p> <p>24 A. Right.</p>	<p style="text-align: right;">Page 197</p> <p>1 control?</p> <p>2 A. A control is run -- is purposely put in</p> <p>3 place to, quote, control for experimental error,</p> <p>4 any kind of error that might be present in the</p> <p>5 experimental design and the collection of data or</p> <p>6 whatever.</p> <p>7 Q. Is using a control a good way to</p> <p>8 compare -- to have something to compare your</p> <p>9 results from the actual experiment, too?</p> <p>10 A. If the control is the right control, yeah.</p> <p>11 Q. Okay. So the purpose of the control is --</p> <p>12 and if I'm oversimplifying this, I'm sorry. Let me</p> <p>13 know.</p> <p>14 The purpose of the control is to make sure</p> <p>15 you have some comparative mechanism to judge your</p> <p>16 results against?</p> <p>17 A. That's -- yes.</p> <p>18 Q. That's fair?</p> <p>19 A. That's fair at a high level.</p> <p>20 Q. So if you had no control, would the</p> <p>21 results of your experiment -- would they be less</p> <p>22 meaningful?</p> <p>23 A. Yes.</p> <p>24 Q. Why would they be less meaningful?</p>

<p style="text-align: right;">Page 198</p> <p>1 A. Because there could be -- without a 2 control to compare to, you cannot say with 3 certainty that any of the results are due to the 4 treatment. 5 Q. Okay. So if you don't have a control, you 6 would struggle to prove causation? 7 A. Yes. 8 Q. What does causation mean to you? 9 A. Cause and effect. In this kind of 10 context, a treatment -- I don't know what it means 11 legally, but to me, it means some treatment caused 12 something in an organism. 13 Q. Well -- and that's a fair limitation, 14 because we do place meaning on causation from a 15 legal perspective, but I'm more concerned with your 16 scientific -- in your scientific and expert 17 opinion -- 18 A. Okay. 19 Q. -- what causation means to you. 20 A. I don't use that term. I can't remember 21 if I ever did use the term. So I'm just thinking 22 about dictionary and thesaurus and that sort of 23 thing. 24 Causation -- how do you say this in</p>	<p style="text-align: right;">Page 200</p> <p>1 properly done, and the only variable that changed 2 was the chemical, I'd say yes, the chemical caused 3 the death of the insect. 4 Q. Okay. Do you have an opinion on what the 5 definition is of the word correlation? 6 A. Yes. 7 Q. What does correlation mean to you? 8 A. Correlation is used when someone wants to 9 describe the relationship between one thing and 10 another. 11 It's either correlated, meaning there 12 is -- usually, it's in this way. It's either 13 correlated or not correlated. 14 If it's correlated, in my -- the way I 15 would use it, then that means there is an 16 association, a relationship between A and B. If 17 it's not correlated, then there's no relationship. 18 Q. Okay. If you know, Doctor, in your 19 opinion as a scientist, do you draw a distinction 20 between the words causation and correlation in your 21 mind? 22 A. In my mind, yes, because causation, even 23 though I don't use it, as has been noted, seems to 24 be a more rigorous -- seems to be a more rigorous</p>
<p style="text-align: right;">Page 199</p> <p>1 English? I mean, the causation is something that 2 caused an effect on an organism or something else. 3 Q. But let me try to put it this way. 4 A. Okay. 5 Q. In your experience working with your 6 previous employer -- 7 A. Okay. 8 Q. -- you would make, let's say, 9 hypothetically, a chemical compound. 10 A. Yes. 11 Q. And you would spray that chemical compound 12 onto a bug -- 13 A. Okay. 14 Q. -- and it would kill the bug. 15 A. Okay. 16 Q. In that instance, would you be comfortable 17 saying the spray caused the bug's death? 18 MR. FALKOF: I'm going to object to the 19 question, because he's already told you he doesn't 20 use the word cause or causation in his work. 21 MR. BARTELA: Objection noted. 22 BY MR. BARTELA: 23 Q. If you know. 24 A. If there is a control, everything else was</p>	<p style="text-align: right;">Page 201</p> <p>1 word or a more specific word than correlation. 2 Q. It would be fair to say there might be a 3 higher level of certainty when you're using the 4 term corr -- or causation instead of correlation? 5 MR. FALKOF: Same objection as earlier. 6 THE WITNESS: I'd agree, except I'd have to add 7 this. 8 There is an actual statistical test for 9 correlation called an R-squared test. And if that 10 R-squared number is very high, then you are very 11 certain that there's a causation and a positive 12 relationship between these two things. 13 BY MR. BARTELA: 14 Q. And if you had that really high R-squared 15 value, in theory, if you continued to replicate a 16 test over and over again, your results would be 17 consistent, right? 18 A. You get the same thing, yes. In theory, 19 yes. 20 Q. Okay. Would you agree that in a 21 scientific setting, if you are unsure of the level 22 of correlation between your test variable and the 23 outcome that it might be dangerous to continue to 24 replicate that test?</p>

<p style="text-align: right;">Page 202</p> <p>1 A. Not dangerous. It might teach you 2 something. So -- 3 Q. What might it teach you, Doctor? 4 A. It might teach you why you got a poor 5 correlation in the first place. 6 Q. So it might show you that the treatment 7 you're testing isn't efficacious in the way you 8 want it to be? 9 A. It could. 10 Q. Okay. Or it might show you that your 11 treatment is actually working the way you want it 12 to? 13 A. Yeah. It could show you anything, yeah. 14 Q. It depends on the parameters of the test? 15 A. Yes. 16 Q. Okay. I want to kind of touch on a 17 tangential idea, which is bias. 18 A. Okay. 19 Q. In your scientific opinion, does bias have 20 a meaning? 21 A. Yes. 22 Q. And what is that meaning? 23 A. It's anything -- virtually anything 24 that -- let me choose the right word without using</p>	<p style="text-align: right;">Page 204</p> <p>1 A. Yes. 2 Q. When you looked through these various 3 studies, did you have an eye towards whether there 4 was any bias in them? 5 MR. FALKOF: Objection. Bias on his part or 6 bias by the researchers or someone else? 7 MR. BARTELA: I'll clarify it. 8 BY MR. BARTELA: 9 Q. Dr. Borth, when you're looking through 10 these -- the various efficacy studies of the 11 Weitech branded devices, did you keep an eye out to 12 see if the actual researchers had expressed any 13 bias in the way that they performed their tests? 14 A. I did not detect any bias in the research 15 of the Weitech units. That would be in the 16 correlation report, right? 17 Q. Yeah. In the correlation report and any 18 of the ones that were outside the correlation 19 report -- 20 A. Well -- 21 Q. -- which would be for -- 22 A. Yes, outside the correlation report, but 23 they weren't on Weitech. It was Dr. Gold's bias -- 24 Q. Well --</p>
<p style="text-align: right;">Page 203</p> <p>1 bias, because that's what I use all the time. It's 2 anything that -- pardon this, okay? 3 Q. Take your time, Doctor. 4 A. Bastardizes the -- everything that 5 corrupts the results. 6 Q. Okay. That's fair. Bias can come in 7 different forms? 8 A. Many different -- any -- yes, innumerable. 9 Q. A popular one would be confirmation bias? 10 I hear that a lot, confirmation bias. 11 A. I don't. I don't know what that means. 12 Q. In my practice -- 13 MR. BARTELA: Go off the record for a minute. 14 (Discussion off the record.) 15 BY MR. BARTELA: 16 Q. So we were talking about bias. And one 17 bias I mentioned was confirmation bias. Do you 18 have any understanding what that is? 19 A. No. 20 Q. Let's ask it this way. If a person has a 21 desired outcome and they run an experiment and they 22 cherry-pick the findings that the experiment 23 generates to fit with their desired outcome, would 24 that be a form of bias?</p>	<p style="text-align: right;">Page 205</p> <p>1 A. -- in my opinion. 2 Q. To be fair, I'm talking about the Dr. Subi 3 studies -- 4 A. Oh, okay. 5 Q. -- that weren't included in the 6 correlation report. 7 A. No, I did not detect any bias there. 8 Q. Okay. So in your opinion, could a low 9 population number of a test be used to bias the 10 results? 11 A. Bias is too strong of a word there, I 12 think. 13 Q. What word would you apply? 14 A. I'd state it another way. I'd say that 15 the more test organisms you have, the stronger your 16 results or your conviction in the results, whatever 17 they may be, would be. 18 If you have a low number, that doesn't 19 really -- I mean, I think it's like an equal sign 20 with a slash through it. It doesn't mean the 21 same -- to me, low numbers don't equal bias. 22 Q. Okay. To you, low numbers equal a weaker 23 conclusion? 24 A. No, because you can deal with that with</p>

<p style="text-align: right;">Page 206</p> <p>1 statistics.</p> <p>2 Every -- as I said in there somewhere,</p> <p>3 every researcher, I believe -- at least</p> <p>4 entomologists, if all else was equal, they'd love</p> <p>5 to have more organisms to test than less organisms.</p> <p>6 And if you're in an environment where, for</p> <p>7 whatever reason, be it a natural environment or a</p> <p>8 laboratory environment and you have what some might</p> <p>9 consider to be a low number, that's just what you</p> <p>10 deal with and you work it out.</p> <p>11 Q. So I want to make sure I understand the</p> <p>12 logical conclusion of what you just said.</p> <p>13 A. Yeah. Okay.</p> <p>14 Q. Would it be your opinion that where you</p> <p>15 have higher population totals, the results of those</p> <p>16 tests would give you more certainty?</p> <p>17 A. Not necessarily. It depends. It depends</p> <p>18 on the results of the test.</p> <p>19 Q. What about a situation in which you</p> <p>20 consistently used low population totals across a</p> <p>21 range of tests for a given device?</p> <p>22 MR. FALKOF: Objection as to form.</p> <p>23 THE WITNESS: What about it? What's the</p> <p>24 question?</p>	<p style="text-align: right;">Page 208</p> <p>1 just a question.</p> <p>2 MR. FALKOF: Well, no, it is, because --</p> <p>3 MR. BARTELA: No, it's not.</p> <p>4 MR. FALKOF: He used the words conviction. And</p> <p>5 you're using a different word than he's using.</p> <p>6 MR. BARTELA: I asked specifically, and we can</p> <p>7 read it back, if you'd like, would consistently</p> <p>8 using a low population total cause you to question</p> <p>9 results.</p> <p>10 MR. FALKOF: And he was talking about the level</p> <p>11 of conviction.</p> <p>12 MR. BARTELA: It's the question. I'm not</p> <p>13 seeing what the problem is.</p> <p>14 MR. FALKOF: He already gave you the answer.</p> <p>15 And it was based on a level of conviction. But he</p> <p>16 can go ahead, if he has an answer. I don't know if</p> <p>17 he does. Do you know the question?</p> <p>18 THE WITNESS: I'll repeat it the way I under --</p> <p>19 MR. BARTELA: Well, let's do this. Read back</p> <p>20 my question from a moment ago with the interaction</p> <p>21 with Brad.</p> <p>22 (Whereupon, the record was read.)</p> <p>23 THE WITNESS: Not without having more</p> <p>24 information.</p>
<p style="text-align: right;">Page 207</p> <p>1 BY MR. BARTELA:</p> <p>2 Q. You don't see any problem with that?</p> <p>3 MR. FALKOF: Objection as to form.</p> <p>4 THE WITNESS: Consistently using -- your</p> <p>5 question is -- let me repeat it.</p> <p>6 Consist -- if there's a problem -- if I</p> <p>7 see a problem in consistently using low numbers of</p> <p>8 any kind of organism?</p> <p>9 BY MR. BARTELA:</p> <p>10 Q. Test subjects, yeah.</p> <p>11 A. I'd always want to have more, but if you</p> <p>12 have less, you work with less.</p> <p>13 Q. And you wouldn't question the results</p> <p>14 where a researcher is consistently using low</p> <p>15 population totals?</p> <p>16 MR. FALKOF: Objection. That's not what he</p> <p>17 said.</p> <p>18 THE WITNESS: Yeah. I guess I don't understand</p> <p>19 the gist of your question.</p> <p>20 BY MR. BARTELA:</p> <p>21 Q. Right. So --</p> <p>22 A. So rephrase it.</p> <p>23 Q. Just so the record is clear, my question</p> <p>24 is not in any way rephrasing your testimony. It's</p>	<p style="text-align: right;">Page 209</p> <p>1 MR. BARTELA: Okay. Let's take a break.</p> <p>2 (A short break was taken.)</p> <p>3 BY MR. BARTELA:</p> <p>4 Q. Dr. Borth, before the break, we were</p> <p>5 talking about bias, and then, I had some questions</p> <p>6 for you about low population totals. I want to</p> <p>7 revisit some of those questions.</p> <p>8 A. Okay.</p> <p>9 Q. Do you agree with my statement that</p> <p>10 introducing bias into an experiment would be</p> <p>11 counter to the purposes of the scientific method?</p> <p>12 A. I would.</p> <p>13 Q. And why would introducing bias be counter</p> <p>14 to the purposes of the scientific method?</p> <p>15 A. The scientific method is designed, among</p> <p>16 other things, to be objective, to reach an</p> <p>17 objective conclusion. And the process that you go</p> <p>18 through ensures that, if you use it properly.</p> <p>19 So if you interject some bias, you're</p> <p>20 basically -- you're injecting bias. You are.</p> <p>21 You're fiddling with the whole experiment or</p> <p>22 whatever. And the results that you get, you would</p> <p>23 have uncertainty about.</p> <p>24 Q. If you designed a test -- say,</p>

<p style="text-align: right;">Page 210</p> <p>1 hypothetically, you design a test and your design 2 of the test is engineered toward getting an outcome 3 that you want. Would that be a form of bias? 4 A. Yes. Hold on. Let me explain. When 5 you're setting up hypothesis testing -- 6 hypothesis -- there's null hypothesis, alternative 7 hypothesis. You design the test to answer the 8 question do we accept the null hypothesis or not. 9 So not entirely do you not put your own 10 thoughts into it. You have to -- I mean, that's 11 what the purpose of science is. You think of a way 12 to test this hypothesis. I may have gotten off 13 track there but -- 14 Q. That's okay. Is it good practice to run a 15 hypothesis and experiment designed by another 16 scientist to see if there's some bias that you're 17 not maybe aware of? 18 A. Yeah. It's done all the time. It doesn't 19 need to be done. I mean, it's up to the person 20 doing the testing. 21 If they, for whatever -- it could be many 22 reasons why they -- it would be done, but it's not 23 uncommon, but let -- well, okay. 24 Q. Doctor, if you ignored negative data in</p>	<p style="text-align: right;">Page 212</p> <p>1 A. I got to look at it before I can answer. 2 Okay. So you're referring -- your question -- and 3 I know I'll ask you to repeat it again, but it's 4 about the German cockroach study that was included 5 in the correlation report and it's the one that was 6 results from the year 2001, published or reported 7 in 2002. And then, I'm going to try to go to 8 the -- 9 Q. Right. And I'll restate my question now 10 that we're both on the same page. 11 So my question is, in this 2002 cockroach 12 report, where they have changed the test design -- 13 A. Oh, okay. Is that the -- 14 Q. And where they're mentioning the 15 earlier -- 16 A. Right. 17 Q. -- conclusions, but they're not relying on 18 them at all, do you find that report suspect? 19 A. Okay. I got -- I understand. No. And I 20 come back to the reason an experiment -- or a 21 scientist would change the methodology, change the 22 design is because they found something in the first 23 test, let's say, in this case that they wanted to 24 eliminate. They wanted to eliminate whatever it</p>
<p style="text-align: right;">Page 211</p> <p>1 reporting conclusions, would that be a form of 2 bias? 3 A. Totally ignored, yes. I mean, it's like 4 cherry-picking, like you used that term before, 5 choosing to ignore data that doesn't support your 6 hypothesis. Not good. 7 Q. In a situation where negative results are 8 ignored in favor of more positive results, would 9 that resulting scientific conclusion that's based 10 only on the positive results be reliable, in your 11 opinion? 12 A. They would be suspect. That's the word 13 I've used. 14 Q. You'd use the word suspect? 15 A. Uh-huh. 16 Q. So do you agree that the 2002 cockroach 17 test results are suspect? 18 MR. FALKOF: Which exhibit are you looking at? 19 THE WITNESS: Yeah. Let me -- I got to refresh 20 my memory. 21 BY MR. BARTELA: 22 Q. Just so we're all clear, the 2002 23 cockroach test that's included in the correlation 24 report.</p>	<p style="text-align: right;">Page 213</p> <p>1 was that they found. So they gained knowledge and 2 redesigned the experimental apparatus to avoid what 3 they found before. 4 So do I think that's bad or unreasonable 5 or nonscientific? No. I think it is completely 6 scientific. It's a -- it's within the scientific 7 method where -- iteration. Repeat. As you gain 8 knowledge, you make your experiments more focused, 9 perhaps, to -- because you learn, you learn. So 10 you do things differently. 11 Q. And what they eliminated in that test was 12 the portion of the device where the cockroaches had 13 accumulated? 14 A. The placement of the device. 15 Q. Okay. In your report -- let's see if I 16 can find the section. 17 On Page 15 of 19 in your report -- which I 18 think we marked as Borth 1. It's in Section 2, 19 critique of plaintiff's expert witness disclosure 20 and deposition. And I'm looking specifically at 21 Subsection 3 on Page 15 of 19. 22 A. Okay. 23 Q. Are you with me, Dr. Borth? 24 A. Yes.</p>

<p style="text-align: right;">Page 214</p> <p>1 Q. Okay. You go through some testimony here. 2 At the very end, you say, in my opinion, increased 3 insect pest activity is a demonstration that the 4 ultrasonic device is, indeed, causing an effect on 5 pest behavior and by definition is working. Have I 6 read that correctly? 7 A. Yes, you did. 8 Q. And I want to be clear here that the 9 product that we're here and we've been here all day 10 talking about was represented to consumers as being 11 able to drive pests out, is that fair? 12 A. That's what was on Galoski's package, yes. 13 Q. So when you're using the term working 14 here, you're not in any way implying that the 15 devices would be effective in driving pests out? 16 A. It's not -- 17 Q. Am I understanding that correctly? 18 A. It's not the intent of that statement, 19 that's right. 20 Q. The intent of the statement is to point 21 back to research to show that there was some 22 increased activity in cockroaches based on previous 23 literature? 24 A. There was an effect on the behavior of the</p>	<p style="text-align: right;">Page 216</p> <p>1 BY MR. BARTELA: 2 Q. Okay. Dr. Gold, you have in front of you 3 what we previously marked as 20 in Dr. Gold's 4 deposition? 5 A. Yes. 6 Q. Have you seen this report at all? 7 A. Not in this form. 8 Q. Okay. So this was -- this appears to have 9 been published in Insect Science in 2006. 10 Do you -- are you aware of Insect Science? 11 Is that a trade publication or -- 12 A. It's not a trade publication. It looks to 13 me as it's a refereed journal, but I'm not aware of 14 it. 15 Q. I want to point you to -- if you'd like to 16 take a minute to review this, that's fine with me, 17 but I have a quick question about it. 18 A. Okay. 19 Q. Go ahead and review it. That's fine. 20 A. Well, I'll just look at the abstract real 21 quick. Okay. Let's go. 22 Q. Okay. There was some discussion during 23 Dr. Gold's deposition about the way in which 24 Dr. Subramanyam was interpreting Dr. Gold's work,</p>
<p style="text-align: right;">Page 215</p> <p>1 insect. And so -- yes. 2 Q. I just want to make sure we're clear on 3 that. 4 There was an exhibit to Dr. Gold's 5 deposition. It was Exhibit 20, I believe. It was 6 the very final exhibit. And it was a study 7 published by Dr. Subramanyam. Have you reviewed 8 that at all? Let me show it to you. 9 A. Okay. 10 MR. BARTELA: And unfortunately, I only have 11 two copies of this so -- 12 MR. FALKOF: That's okay. Give it to him and 13 I'll look over his shoulder. 14 MR. BARTELA: Here you go. 15 MR. FALKOF: So this one is going to be marked 16 as the exhibit? 17 MR. BARTELA: Yeah. It was Exhibit 20 to 18 Gold's deposition. 19 MR. FALKOF: Oh, I see. It's already marked. 20 MR. BARTELA: Yeah. 21 MR. FALKOF: Do you want to mark it again? 22 MR. BARTELA: I think we can just refer to it. 23 MR. FALKOF: Okay. 24</p>	<p style="text-align: right;">Page 217</p> <p>1 is that fair? 2 A. I remember reading that, yes. 3 Q. Okay. So you're generally aware of what 4 I'm talking about? 5 A. Yes. 6 Q. Okay. I want to point your attention to 7 Page 65, which is the fifth page in in the 8 beginning. 9 A. Okay. 10 Q. There -- at the very end of that 11 section -- and please feel free, if you'd like, to 12 read that section first. Just let me -- 13 A. Well, what's the question, and then, we'll 14 see? 15 Q. Okay. At the very end of the section, 16 there's a couple of sentences that start with 17 however. 18 A. Uh-huh. 19 Q. It reads, however, the repellency of 20 ultrasound against German cockroach, reported by 21 Ballard, et al. in 1984 was partial and was only 22 significant at the 10 percent level. 23 Therefore, results from Ballard, et al., 24 1984 also indicate that the device could not repel</p>

<p style="text-align: right;">Page 218</p> <p>1 the German cockroach as sufficiently as an 2 effective pest management tool. So I have a couple 3 of questions about that. 4 A. Okay. 5 Q. So here, Dr. Subi and his co-publisher, 6 Dr. Huang, they're -- they are pointing out the 7 10 percent level of significance that was used in 8 that study -- 9 A. Yes. 10 Q. -- is that fair? 11 A. Yes. 12 Q. And earlier, we talked about the .05. 13 That would be 5 percent level? 14 A. That's what it would be, yes. 15 Q. Okay. And they say that based on this 16 10 percent level -- and I want you to tell me if 17 I'm reading this correctly. 18 Based on this 10 percent level that was 19 used, the results indicate that the device could 20 not repel the German cockroach as sufficiently as 21 an effective pest management tool. Is that what 22 they're saying there? 23 A. What's -- you just read back what they 24 wrote. So --</p>	<p style="text-align: right;">Page 220</p> <p>1 al., 1984 also indicate that the device cannot 2 repel the German cockroach as sufficiently as an 3 effective pest management tool. 4 A. That brings in a whole other element. 5 What is an effective pest management tool? 6 It could be multiple tactics to reduce the 7 population of a German cockroach infestation. You 8 could use bates. You could use sprays. You could 9 use anything at the repertoire of the pest control 10 manager. So -- 11 Q. You've never seen this study before? 12 A. I've never seen this. I've never seen 13 this paper. 14 Q. Do you think it would be -- 15 A. Now, I -- 16 MR. FALKOF: You've answered the question. 17 BY MR. BARTELA: 18 Q. Do you think, Doctor, it would have been 19 important to do a literature review to see how the 20 study of ultrasonic devices has developed over 21 time? 22 A. For me? 23 Q. Yes. 24 A. No.</p>
<p style="text-align: right;">Page 219</p> <p>1 Q. So I have it correct, right? 2 A. Yeah. That's what they write, yes. 3 Q. Right. So they're not interpreting 4 Dr. Gold's and Dr. Ballard's 1984 study as saying 5 that ultrasonic pest repellers could definitively 6 repel German cockroaches, are they? 7 A. In this sentence -- and they're referring 8 to the Ballard, et al., 1984. 9 They're saying there was only partial 10 repellency and it was only significant at the 11 10 percent level, which goes back to my statement 12 many hours ago, which talked about the arbitrary 13 decision on the part of a researcher to choose the 14 level that they want to use in the experiment. 15 So only at the 10 percent level implies 16 that it would not have been significant at the 17 5 percent level. 18 Q. So they're agreeing with Dr. Gold's 19 assessment of his research that there may have been 20 some effect on German cockroaches, but there was no 21 repellency? 22 A. They're saying it was significant at the 23 10 percent level. 24 Q. They say, quote, results from Ballard, et</p>	<p style="text-align: right;">Page 221</p> <p>1 Q. Even though -- and you say no, but that's 2 even though you don't have any real experience 3 dealing with ultrasonic pest repellers? 4 A. No, because my instructions were to review 5 the material that was given to me. 6 Q. Right. And so you reviewed the material 7 that was given to you, right? 8 A. Yes. 9 Q. And you read the conclusions that were 10 included in all of the various efficacy studies, 11 right? 12 A. Yes. 13 Q. And -- but you didn't do any independent 14 research to see what the science was behind 15 ultrasonic pest repellers, did you? 16 A. I did no experimentation. 17 Q. Dr. Gold -- or Dr. Borth. I'm sorry. In 18 this study, I'll purport that Drs. -- I think 19 Drs. Huang and Subramanyam, they studied three 20 devices. A, B, and C, they labeled them. 21 A. Yes. 22 Q. And they used a number of different units 23 for each, but they -- if you look to Page 2 of the 24 document, you'll see there's an outline of the</p>

<p style="text-align: right;">Page 222</p> <p>1 tests that they did?</p> <p>2 A. A diagram, yes.</p> <p>3 Q. And they say test procedures, paired</p> <p>4 Plexiglass enclosures, each meeting at 1.2 meters</p> <p>5 by 1.2 meters by 1.2 meters were constructed and</p> <p>6 placed in a room in east/west orientation. And we</p> <p>7 see that there's a conduit that connects the two.</p> <p>8 Is it fair to say that this is a similar</p> <p>9 style of test that these doctors were performing on</p> <p>10 the Weitech models that are included in the</p> <p>11 materials you've relied upon for your report?</p> <p>12 A. Yes. The dimensions are different, but</p> <p>13 the setup appears to be the same.</p> <p>14 Q. They ultimately conclude on Page 64 under</p> <p>15 a section -- 64, you'll find on the top left. Are</p> <p>16 you with me?</p> <p>17 A. Yes.</p> <p>18 Q. Okay. They ultimately conclude in a</p> <p>19 section that's labeled German cockroach</p> <p>20 responses -- you'll find it --</p> <p>21 A. Uh-huh. Yes.</p> <p>22 Q. -- at the bottom of the second column on</p> <p>23 the page.</p> <p>24 A. Okay.</p>	<p style="text-align: right;">Page 224</p> <p>1 Q. They say these results indicate the</p> <p>2 ultrasound produced from these devices did not</p> <p>3 repel cockroaches in the test conditions.</p> <p>4 A. And they're using the probability of</p> <p>5 5 percent level.</p> <p>6 If they had moved it up to the 10 percent</p> <p>7 level, apparently, just like Ballard and Gold did</p> <p>8 in 1984, they may have found significance. So --</p> <p>9 Q. So you're saying if they made the test</p> <p>10 easier to pass, they may have passed?</p> <p>11 A. It's another way of saying it, yeah.</p> <p>12 Q. In the efficacy studies that these doctors</p> <p>13 did -- performed, rather, for Applica, did they use</p> <p>14 the 5 percent threshold in those studies?</p> <p>15 A. I'd have to look. I don't remember.</p> <p>16 Q. To the best of your recollection, do you</p> <p>17 have any memory?</p> <p>18 A. Most -- most of the time, researchers use</p> <p>19 the 5 percent level, unless they're in lab</p> <p>20 conditions.</p> <p>21 Q. Wouldn't you want to have looked at this</p> <p>22 paper and compared the devices that they tested --</p> <p>23 A. Yeah, I would have.</p> <p>24 Q. -- with other devices?</p>
<p style="text-align: right;">Page 223</p> <p>1 Q. They say, quote, however the paired</p> <p>2 T-tests indicate that these differences were not</p> <p>3 statistically significant for all three devices and</p> <p>4 throughout the six days, except for Device B on</p> <p>5 Day 6, which was significant.</p> <p>6 These results indicate that ultrasound</p> <p>7 produced from these devices did not repel</p> <p>8 cockroaches in the test conditions.</p> <p>9 Dr. Borth, it's my understanding based on</p> <p>10 reading this paper that their conclusion is that</p> <p>11 there was no -- the cockroaches that were tested</p> <p>12 for Devices A, B, and C were not repelled by those</p> <p>13 devices.</p> <p>14 And my question to you is, don't you think</p> <p>15 this paper would have been important in forming</p> <p>16 your opinion about the efficacy of the pest</p> <p>17 repellents at issue in this case?</p> <p>18 A. It might have been.</p> <p>19 Q. Well, Doctor, we have Drs. Huang and</p> <p>20 Subramanyam, who were the same doctors that</p> <p>21 conducted a number of the underlying efficacy tests</p> <p>22 you've pointed to in your report doing another test</p> <p>23 and concluding three devices don't work.</p> <p>24 A. No, that's not what they concluded.</p>	<p style="text-align: right;">Page 225</p> <p>1 A. Yes. And --</p> <p>2 MR. FALKOF: No question.</p> <p>3 THE WITNESS: No question.</p> <p>4 BY MR. BARTELA:</p> <p>5 Q. Go ahead.</p> <p>6 A. That's okay.</p> <p>7 MR. FALKOF: You've answered the question.</p> <p>8 BY MR. BARTELA:</p> <p>9 Q. Is Insect Science a popular academic</p> <p>10 journal?</p> <p>11 A. I don't know what its readership is. I'm</p> <p>12 more familiar with ones that are published by the</p> <p>13 Entomological Society of America. I don't know who</p> <p>14 publishes that. So --</p> <p>15 Q. Let me ask it this way, because that was a</p> <p>16 little unspecific, and I can realize that.</p> <p>17 Is Insect Science an academic journal that</p> <p>18 you're generally aware of? Do you know that it</p> <p>19 exists?</p> <p>20 A. It doesn't surprise me that it exists, put</p> <p>21 it that way. I have never published in it and I --</p> <p>22 it's just -- I don't think it's as popular as the</p> <p>23 Entomological Society of America ones.</p> <p>24 Q. Dr. Borth, is it your opinion that any of</p>

<p style="text-align: right;">Page 226</p> <p>1 the underlying efficacy -- let me take another stab 2 at that.</p> <p>3 Is it your opinion that any of the 4 underlying efficacy studies that were performed on 5 the Weitech branded devices tested those devices in 6 a way -- in the same way that devices would be used 7 by consumers?</p> <p>8 A. The closest ones would be the ones that 9 were done under natural conditions.</p> <p>10 Q. And --</p> <p>11 A. And there were a couple of them.</p> <p>12 Q. Were those the spider tests maybe?</p> <p>13 A. I think they were spiders.</p> <p>14 Q. Okay. Did that factor into your 15 opinion-making process in this case, the fact that 16 a number of the devices weren't tested in -- with 17 field conditions or in field conditions?</p> <p>18 A. I'd say no, because the studies that were 19 done that I reviewed that I had made -- rendered 20 opinions on demonstrated efficacy under the 21 conditions in which they were performed.</p> <p>22 Q. So for instance, when you say in 23 Opinions 2 and 3 that Applica had sufficient 24 scientific evidence to claim Model EW406 would</p>	<p style="text-align: right;">Page 228</p> <p>1 Q. Did anyone else help you prepare these 2 notes?</p> <p>3 A. No.</p> <p>4 Q. What I'm going to do is, I'll announce the 5 other two exhibits so you -- so we're all working 6 together here.</p> <p>7 We've marked as Borth 11 a set of 8 handwritten notes that appear on yellow-lined paper 9 and begin with your notes on Deborah Galoski's 10 deposition.</p> <p>11 A. Okay.</p> <p>12 Q. Have you -- these are your handwritten 13 notes?</p> <p>14 A. Yes. Yes they are.</p> <p>15 Q. Okay. And what we've marked as Borth 12 16 are more handwritten notes. They start with a 17 small yellow piece of paper, with an outline of 18 some sort, and then, they go into more notes on 19 yellow-lined paper.</p> <p>20 A. Yes. Got it.</p> <p>21 Q. These are your notes?</p> <p>22 A. Yes, they are.</p> <p>23 Q. And you've prepared all these notes on 24 your own?</p>
<p style="text-align: right;">Page 227</p> <p>1 repel in, 2, mice, and in 3, cockroaches, when used 2 in accordance with the Use & Care Book, you're not 3 actually relying on any studies where those devices 4 were tested in accordance with the Use & Care Book, 5 correct?</p> <p>6 A. Correct.</p> <p>7 MR. BARTELA: I'd like to mark all these notes. 8 There's just a few questions I think I have.</p> <p>9 (Whereupon, Borth Deposition 10 Exhibit 10, Exhibit 11, and 11 Exhibit 12 were marked for 12 identification.)</p> <p>13 BY MR. BARTELA:</p> <p>14 Q. Okay. Dr. Borth, we're going to look 15 through some of your notes that were provided to us 16 by your counsel.</p> <p>17 The first one, we've marked as Borth 10. 18 And it is what appear to be some handwritten notes 19 on efficiency-lined paper?</p> <p>20 A. Yes.</p> <p>21 Q. Sir, are these your notes?</p> <p>22 A. Yes, they are.</p> <p>23 Q. You made these notes?</p> <p>24 A. Yes.</p>	<p style="text-align: right;">Page 229</p> <p>1 A. Yes.</p> <p>2 Q. Okay. Are there any notes that you took 3 in coming to your opinion on this matter that 4 aren't included in these three packets?</p> <p>5 A. No.</p> <p>6 Q. Okay. And so this would be -- this would 7 be the totality of your notes in this case?</p> <p>8 A. Yes.</p> <p>9 Q. Okay. Beyond these notes, is there 10 anything further in your file that has not been 11 produced or discussed today?</p> <p>12 A. I put everything out here.</p> <p>13 Q. Okay. Well, let's -- let me just get a -- 14 on the record sort of what's here in front of you 15 that you just pointed to. There are three 16 textbooks?</p> <p>17 A. Yes.</p> <p>18 Q. And are these the Mallis textbooks?</p> <p>19 A. Two are Mallis, yes.</p> <p>20 Q. What's the third?</p> <p>21 A. This is the statistics one.</p> <p>22 Q. And you referenced these textbooks in 23 creating your opinion?</p> <p>24 A. Yes.</p>


<p style="text-align: right;">Page 230</p> <p>1 Q. And specifically, with regard to the</p> <p>2 Mallis textbook, is that a textbook you've</p> <p>3 consulted over the years?</p> <p>4 A. On and off, yes. It's like the handbook</p> <p>5 of urban pest management.</p> <p>6 Q. It's been referred to me as the bible</p> <p>7 of --</p> <p>8 A. It is.</p> <p>9 Q. -- pest management.</p> <p>10 A. Yes. Many editions and --</p> <p>11 Q. And do you remember what section</p> <p>12 specifically you reviewed in those books?</p> <p>13 A. Well, I went to the cockroach section to</p> <p>14 see what I could find.</p> <p>15 Q. Okay. Did they discuss ultrasonic pest</p> <p>16 repellers there?</p> <p>17 A. They did. I don't remember which one, but</p> <p>18 the general take was that they're still under</p> <p>19 investigation. No firm conclusions that I</p> <p>20 remember.</p> <p>21 Q. And do you have the most current version</p> <p>22 of the Mallis textbook?</p> <p>23 A. Yeah, No. 10.</p> <p>24 Q. No. 10? And when was No. 10 published?</p>	<p style="text-align: right;">Page 232</p> <p>1 research just to get a real high-level view of what</p> <p>2 I'm dealing with; in this case, what research has</p> <p>3 been presented to me.</p> <p>4 And so in order to -- instead of fumbling</p> <p>5 through whatever number research papers here, I</p> <p>6 take the -- what I consider to be the gist of it</p> <p>7 and put it in one sheet so that it's not only</p> <p>8 easier to reference and to look at to remind</p> <p>9 myself, but also, in this case, it had another</p> <p>10 purpose that -- if you see the columns on the</p> <p>11 right-hand side.</p> <p>12 I basically wanted to know what the</p> <p>13 literature that was provided to me said about the</p> <p>14 results. And this is all pests, all devices. I'm</p> <p>15 not -- you know, no scientific experiment here.</p> <p>16 It's just high-level, what are they saying.</p> <p>17 And I divided them -- or I categorized</p> <p>18 them into results that were statistically</p> <p>19 significant on the positive side, numerically</p> <p>20 positive but not statistically significant,</p> <p>21 numerically negative. So you got like a</p> <p>22 bell-shaped curve, if you can imagine.</p> <p>23 Q. If you turn a few pages in, I think that's</p> <p>24 reflected on a small piece of paper?</p>
<p style="text-align: right;">Page 231</p> <p>1 A. Well, it's been a while.</p> <p>2 Q. Within the last 10 years?</p> <p>3 A. I think so, yes. 2011.</p> <p>4 Q. Okay. And the statistics book that you</p> <p>5 referenced is called Statistical Procedures For</p> <p>6 Agricultural Research?</p> <p>7 A. Yes.</p> <p>8 Q. Second edition?</p> <p>9 A. Yes.</p> <p>10 Q. And what did you reference this textbook</p> <p>11 for?</p> <p>12 A. I wanted to try to find an example of the</p> <p>13 strip split plot design that was referenced in one</p> <p>14 of the research papers.</p> <p>15 Q. And were you able to find an example in</p> <p>16 that book?</p> <p>17 A. Yeah, there is an example in here</p> <p>18 somewhere.</p> <p>19 Q. Okay. Let's go back to what we've marked</p> <p>20 Borth 10, which is on this efficiency-lined paper.</p> <p>21 Could you explain to me what type of notes</p> <p>22 you took on these pages?</p> <p>23 A. Yeah. This was very early on. It is a</p> <p>24 process step that I've used many times in my</p>	<p style="text-align: right;">Page 233</p> <p>1 A. Oh, yes. That's the result of that</p> <p>2 counting.</p> <p>3 Q. So on this sheet of paper, you're -- are</p> <p>4 you weighing the -- all the results against each</p> <p>5 other?</p> <p>6 You're saying there's 22 statistically</p> <p>7 significant results, 40 numerically --</p> <p>8 A. Favorable.</p> <p>9 Q. -- favorable results. There are 25</p> <p>10 numerically unfavorable results and one</p> <p>11 statistically significant unfavorable result.</p> <p>12 A. All I'm doing is counting them across all</p> <p>13 the research that was given to me.</p> <p>14 Q. Is this the threshold you used to come to</p> <p>15 a conclusion about whether the devices --</p> <p>16 A. No.</p> <p>17 Q. -- at issue were effective or not?</p> <p>18 A. No. This is an early, early look to kind</p> <p>19 of ground myself in what I'm going to find when I</p> <p>20 do dig in.</p> <p>21 This would never be published in a</p> <p>22 scientific journal. It's got -- you know, it's</p> <p>23 just really high-level.</p> <p>24 Q. Okay. All right. We'll move on to what</p>

<p style="text-align: right;">Page 234</p> <p>1 we've marked as Borth 11, which are handwritten 2 notes that start with your review of 3 Deborah Galoski's deposition. 4 A. All right. Got it. 5 Q. So again, these are your handwritten 6 notes? No one helped you prepare these, correct? 7 A. Correct. 8 Q. And here, it looks like -- I scanned these 9 briefly. And it looks like you're making 10 handwritten notes on Mrs. Galoski's deposition, her 11 interrogatory responses. 12 A. Yeah. It's just -- 13 Q. Her -- it looks like the Use & Care Book. 14 It looks like we have some notes on the 15 Jeffrey Brown deposition from the Steigerwald case. 16 A. Yes. 17 Q. There's some notes here on what's labeled 18 Subi PPT. 19 A. Yep. 20 Q. So that would be one of the PowerPoints we 21 discussed earlier? 22 A. Yes. 23 Q. Okay. You also have some notes on review 24 of references supplied?</p>	<p style="text-align: right;">Page 236</p> <p>1 the page on the bottom that says PWB. Are those 2 your initials? 3 A. They are. 4 Q. PWB does not understand the executive 5 summary. Does executive summary agree with Page 4 6 of 20? And then, I can't read the rest. 7 A. Phase III animal observations. 8 Q. You're talking about the executive summary 9 from the mouse test? 10 A. I think that was -- yes, it must be. Yes. 11 Q. Does that executive summary -- does it 12 conflict with the reported findings from the test? 13 A. I think it does. 14 Q. And you noticed this -- 15 A. Yes. 16 Q. -- when you were going through and 17 reviewing everything? 18 A. Yes. 19 Q. And did you bring that up with 20 Mr. Campbell? 21 A. No. 22 Q. No? 23 A. This was a note to me -- 24 Q. Oh.</p>
<p style="text-align: right;">Page 235</p> <p>1 A. Yes. That's the 1 through 44 -- I believe 2 it was 44 that came from Mr. Falkof. 3 Q. And then, you have a review of 4 Mr. Campbell's deposition, it looks like, as well 5 as the order from the Steigerwald vs. Bell & Howell 6 case, is that right? 7 A. Yes. 8 Q. You have here also a disclosure outline. 9 It looks like a -- 10 A. Yes. 11 Q. Like an outline of what your -- 12 A. Just -- yeah. 13 Q. -- report was shaping up to be? 14 A. Yes. 15 Q. The next one is your review of the 16 correlation report. 17 A. Correct. 18 Q. And I don't know if I can entirely read 19 your handwriting, but it looks like you have some 20 questions about the correlation report that you 21 were going to talk to Mr. Campbell about, is that 22 fair? 23 A. That's correct, yes. 24 Q. There's a note on the left-hand side of</p>	<p style="text-align: right;">Page 237</p> <p>1 A. -- just as I was reviewing the correlation 2 report. No. I was asking him about physics and 3 electrical this and electrical that. So -- 4 Q. Did you get to the bottom of this question 5 at all? 6 A. With him? 7 Q. No. With anybody, in general. 8 A. Well, I think I resolved it for myself. 9 If we would take the time to read them, you may see 10 that there's a -- the executive summary doesn't 11 necessarily agree with the data; however, my job 12 was to analyze or assess the collection of the 13 data. 14 Q. Sure. 15 A. And it's -- the result of that assessment 16 is what I opined on. 17 Q. In your -- 18 A. Not the executive summary. 19 Q. Do you know who prepared the executive 20 summary? 21 A. I'd have to look. No, I can't recall. 22 Q. Did it concern you that it conflicted with 23 the underlying -- 24 A. It raised a question. I don't know -- I</p>

<p style="text-align: right;">Page 238</p> <p>1 can't explain it, couldn't explain it. I don't 2 know whether the people who received it questioned 3 it. 4 Q. Okay. Does it call into question the 5 reliability of the test at all in your mind? 6 A. Not the test, no. 7 Q. No? 8 A. The interpretation in the executive 9 summary doesn't quite match what I saw in the 10 results. 11 Q. If you look to the next page, I think 12 you're still going through the correlation report. 13 A. Yes. 14 Q. And in the middle, you have rats. And you 15 have a question written to yourself, is sound 16 pressure measured in kHz. 17 A. Wait a minute. Where are you at? 18 Q. I'll show you. 19 A. You went to where? 20 Q. There's a section -- 21 A. Okay. All right. 22 Q. Do you see that? 23 A. Yes, I do. All right. So -- 24 Q. Is that a note to yourself?</p>	<p style="text-align: right;">Page 240</p> <p>1 A. That's an example of a report that 2 Mr. Falkof sent me as something I might follow. 3 Q. Were you at any point instructed that you 4 needed to provide in your report how much you were 5 paid for this report? 6 A. To report it in the report? To 7 disclose -- no, I was not. 8 Q. Okay. Do you know if that's a requirement 9 under Rule 26? 10 A. I do not. 11 Q. Have you ever reviewed Rule 26? 12 A. No. I don't know what that is, except the 13 26th rule to my kids when they were little. Sorry. 14 It's getting late. 15 Q. We're almost done. 16 (A short break was taken.) 17 BY MR. BARTELA: 18 Q. Dr. Borth, what is your -- what was your 19 billing rate for this project? 20 A. \$300 per hour. 21 Q. And how many hours did you spend on this? 22 A. It's written there. In the month of -- 23 MR. FALKOF: Just total it up. 24</p>
<p style="text-align: right;">Page 239</p> <p>1 A. Question to myself. Is sound pressure -- 2 well, it was a question for me to ask Les Campbell. 3 Q. So at this point, you're trying to figure 4 out what kilohertz are? 5 A. Yes. 6 Q. What sound pressure is? 7 A. Right. 8 Q. What voltage magnitude is? 9 A. Correct. 10 Q. All right. We can turn, if you'd like, 11 now to Borth 12. Borth 12 starts out like this. 12 It's a small yellow piece of paper. 13 So I'll just reask the same question. 14 These are all of your notes and you prepared them 15 on your own, is that fair? 16 A. Yes. 17 Q. What's this an outline of on the very 18 first page? 19 A. Okay. What is this an outline of? This 20 is an outline of my report that I started with. 21 Q. What is Camp -- is that Campbell vs. 22 Coca-Cola? 23 A. Yes. 24 Q. What is that?</p>	<p style="text-align: right;">Page 241</p> <p>1 BY MR. BARTELA: 2 Q. Total for the whole -- through the whole 3 endeavor. 4 A. 98 -- I don't have a total on -- 98, 5 November, December. January, I don't have a total 6 yet. I can take the time to add them up. 7 Q. Could you ballpark it for me in your head? 8 A. All right. 9 MR. FALKOF: Do you want to take a calculator? 10 THE WITNESS: Yeah. So 119 hours, not 11 including today. And it's not been submitted yet 12 for the month of January and -- so that would be 13 119 -- 139, plus -- so it's about 200 hours, a 14 little more. 15 BY MR. BARTELA: 16 Q. And your -- what was your billing rate 17 again? 18 A. \$300 per hour. 19 Q. Okay. And do you have a different billing 20 rate for appearing for the deposition today? 21 A. No. 22 Q. Okay. What about for testifying, if 23 you're called to testify? 24 A. No. I have not anticipated that.</p>

<p style="text-align: right;">Page 242</p> <p>1 Q. Okay. And you said, so far, you think 2 you've worked about 200 hours on the case? 3 A. Yes. 4 MR. BARTELA: Gents, if you'd give me five 5 minutes, I'll go through my notes and we can 6 finish. 7 MR. FALKOF: Okay. All right. 8 (A short break was taken.) 9 BY MR. BARTELA: 10 Q. All right. I have maybe five minutes 11 worth of questions, and then, I'm done. 12 A. Okay. 13 Q. Looking at your report, which we have 14 spent a great deal of time going through -- I'm 15 looking at Page 12 of 19. 16 And you're -- there's a section here in 17 which you discuss low numbers and tests. We've 18 talked about that already. 19 A. Yes. 20 Q. So I have a very specific question. You 21 say at the very end of Subsection 1, but large 22 numbers are not necessary for biological testing, 23 nor are they necessary criterion for the scientific 24 method.</p>	<p style="text-align: right;">Page 244</p> <p>1 Q. Did you find those in the Use & Care 2 booklet? 3 A. Yes. 4 Q. Can you point to any of the efficacy 5 studies or reports that were -- that came from 6 Applica that did testing to determine that you 7 needed to place additional -- that consumers would 8 need to place additional units in adjacent rooms 9 and to move the unit to a different location as 10 necessary? 11 A. No. 12 MR. BARTELA: Okay. Mr. -- or Dr. Borth, you 13 were a gentleman. Thanks for putting up with me 14 and I really appreciate your time and I don't have 15 any further questions right now. 16 MR. FALKOF: I have just a few questions on two 17 exhibits. 18 EXAMINATION 19 BY MR. FALKOF: 20 Q. Dr. Borth, let me show you what has been 21 previously marked as Exhibit 20 from Dr. Gold's 22 deposition. Mr. Bartela has showed this to you 23 earlier. 24 Is there any indication from this study</p>
<p style="text-align: right;">Page 243</p> <p>1 A. Right. 2 Q. Of the scientific method. Excuse me. Do 3 you have any papers or studies or any academic 4 material that you relied upon in drawing that -- I 5 don't want to call it conclusion but in making that 6 statement? 7 A. It's experience. 8 Q. Experience? Okay. 9 A. 27 years. 10 Q. So you can't point to any specific papers? 11 A. No. 12 Q. Okay. On Section -- or Page, rather, 18 13 of 19, you have two subsections labeled C and D. 14 And these are, I believe, taken from the 15 Use & Care booklet. 16 A. Yes. 17 Q. C reads, for best results, place 18 additional units in adjacent rooms and on each 19 level of the dwelling, moving the unit to a 20 different location as necessary. 21 Subsection D reads operate the unit 22 24 hours a day and place additional units in 23 adjacent rooms. 24 A. Yes.</p>	<p style="text-align: right;">Page 245</p> <p>1 that any of the three devices that were tested by 2 Dr. Subi and his colleague were Applica devices? 3 A. No. They're coded A, B, C. Device A, B, 4 C. 5 Q. Is there any information that you have 6 seen in the few minutes that you have had to look 7 at this exhibit that would suggest that these are, 8 in fact, Applica devices? 9 A. Well, I have not read this in its 10 entirety, but I -- in glancing through it, I don't 11 see any decoding of the A, B, C. There's no 12 mention of Applica or Weitech or anything. They're 13 just coded results. 14 Q. And finally, on Page 65 of the report, it 15 states the only positive finding was that of 16 Ballard, et al. in 1984. 17 They reported that sound emitted from a 18 commercial ultrasonic device could repel the German 19 cockroach in the laboratory. The biological basis 20 and importance of the positive results are 21 difficult to interpret. 22 The different results observed by Ballard, 23 et al. in 1984 might be due to the differences in 24 the sound properties produced from the device</p>

<p style="text-align: right;">Page 246</p> <p>1 tested. Do you agree with that statement?</p> <p>2 A. Yes.</p> <p>3 Q. Okay. Finally, with respect to the</p> <p>4 exhibit which was marked as Borth Deposition</p> <p>5 Exhibit No. 4 entitled Response of Several</p> <p>6 Arthropod Species to Three Ultrasonic Devices from</p> <p>7 Weitech, Inc., counsel asked you whether the</p> <p>8 photographs of the cockroach tests, which are</p> <p>9 contained within the exhibit -- and there are, in</p> <p>10 fact, six photographs reflected the use of the</p> <p>11 device in real life.</p> <p>12 Do those photographs in the Exhibit No. 4</p> <p>13 under the title cockroach test appear to be showing</p> <p>14 the use of the device as if it were in real life?</p> <p>15 A. Actually, it doesn't.</p> <p>16 Q. Why is that?</p> <p>17 A. Well, in an end user application, you</p> <p>18 can't say always with certainty, but I'll -- you</p> <p>19 are asked to plug the device into an outlet, which</p> <p>20 is in a wall.</p> <p>21 This looks like it's connected to an</p> <p>22 extension cord so that all sides are visible,</p> <p>23 available. And in an end use setting, being flush</p> <p>24 against the wall would make one side inaccessible.</p>	<p style="text-align: right;">Page 248</p> <p>1 A. I understood it to be outside the</p> <p>2 Plexiglass with the hole and sound coming through</p> <p>3 that hole.</p> <p>4 Q. But if the cockroaches wanted to, they</p> <p>5 could still --</p> <p>6 A. Oh.</p> <p>7 Q. -- reach it?</p> <p>8 A. They could accumulate around it, yeah.</p> <p>9 Q. Was there any evidence of them</p> <p>10 accumulating around it?</p> <p>11 A. They didn't mention it, no.</p> <p>12 MR. FALKOF: Okay. That's all I have. Thank</p> <p>13 you.</p> <p>14 MR. BARTELA: I just have two questions.</p> <p>15 EXAMINATION (Further)</p> <p>16 BY MR. BARTELA:</p> <p>17 Q. Turn back to -- let's turn back to Gold</p> <p>18 No. 20.</p> <p>19 MR. FALKOF: Did you want this?</p> <p>20 MR. BARTELA: Oh, yeah. Can I take that?</p> <p>21 THE WITNESS: Which one is --</p> <p>22 BY MR. BARTELA:</p> <p>23 Q. That is the Dr. Subi study.</p> <p>24 A. This again.</p>
<p style="text-align: right;">Page 247</p> <p>1 Q. And then, counsel was suggesting that the</p> <p>2 report, which is attached to the correlation report</p> <p>3 and identified earlier as the June 1, 2002 report</p> <p>4 from Dr. Subi, in some way used a setup that was</p> <p>5 more unlike the actual use of the device than in</p> <p>6 his original test.</p> <p>7 Which appears to be more like the actual</p> <p>8 use of the device?</p> <p>9 A. Well, it would not be the one</p> <p>10 photographed.</p> <p>11 Q. It would not be the one from the Exhibit</p> <p>12 No. 4?</p> <p>13 A. Right, because there's -- in a typical</p> <p>14 setting, this device would be plugged into a wall</p> <p>15 outlet.</p> <p>16 Q. So it would be flush to a wall?</p> <p>17 A. Flush to the wall, yes.</p> <p>18 Q. And in fact, in the study that was then</p> <p>19 done by Dr. Subi in June of 2 -- or the report that</p> <p>20 he reflects in June of 2002, that device, while</p> <p>21 it's inside a wall, at least is flush with the</p> <p>22 wall?</p> <p>23 A. The 2002 --</p> <p>24 Q. It's actually inside.</p>	<p style="text-align: right;">Page 249</p> <p>1 Q. Yeah.</p> <p>2 A. Okay.</p> <p>3 Q. If -- I just want you to turn to Page 63,</p> <p>4 Doctor. The top right column -- well, I guess the</p> <p>5 bottom of the left column, they are talking about</p> <p>6 the kilohertz outputs --</p> <p>7 A. Yes.</p> <p>8 Q. -- of the devices.</p> <p>9 A. Yes.</p> <p>10 Q. They say A generated peak frequencies at</p> <p>11 26 to 34 kilohertz?</p> <p>12 A. Yes.</p> <p>13 MR. FALKOF: I'm going to object. It says --</p> <p>14 THE WITNESS: And.</p> <p>15 MR. FALKOF: -- 26 and 34.</p> <p>16 MR. BARTELA: Oh. Thank you.</p> <p>17 BY MR. BARTELA:</p> <p>18 Q. Ultrasonic Device A generated peak</p> <p>19 frequencies at 26 and 34. The device produced a</p> <p>20 95 plus or minus one decibel SPL at 50 centimeters.</p> <p>21 Then, they recount B, which generated peak</p> <p>22 frequencies at 27 and 35 kilohertz, producing</p> <p>23 92 plus or minus 4 decibel SPL.</p> <p>24 A. Yes.</p>

<p style="text-align: right;">Page 250</p> <p>1 Q. Device C units generated a wide range of 2 frequencies from 27.7 to 42 kilohertz. 3 A. Right. 4 Q. The device produced an 88 plus or minus 2 5 decibel SPL. 6 A. Yes. 7 Q. Does Device C correspond with any of the 8 Black & Decker branded models that are recounted in 9 the correlation study, to the best of your 10 knowledge? 11 A. Yes. Without referring specifically to 12 it, it's the -- 27-42 is how they would have 13 labeled it in the correlation report. 14 Q. Okay. And then, in terms of the 2002 15 cockroach study, just so we're clear, only the face 16 of the device would have been accessible to the 17 cockroaches in that study, is that correct? 18 A. As I understand the design, yeah. 19 Q. So the actual back end of the device -- 20 A. Was outside -- 21 Q. -- was outside -- 22 A. -- the enclosure. 23 MR. BARTELA: No further questions. 24 MR. FALKOF: All right. Signature will be</p>	<p style="text-align: right;">Page 252</p> <p>1 STATE OF ILLINOIS) 2) SS: 3 COUNTY OF C O O K) 4 I, Elizabeth L. Vela, an Illinois Certified 5 Shorthand Reporter, do hereby certify that 6 heretofore, to-wit, on the 26th day of January, 7 2017, personally appeared before me, at One North 8 Wacker Drive, Chicago, Illinois, PAUL W. BORTH, 9 Ph.D., BCE, in a cause now pending and undetermined 10 in the United States District Court for the 11 Northern District of Ohio, wherein DEBORAH GALOSKI 12 is the Plaintiff, and APPLICA CONSUMER PRODUCTS, 13 INC. is the Defendant. 14 I further certify that the said witness was 15 first duly sworn to testify the truth, the whole 16 truth and nothing but the truth in the cause 17 aforesaid; that the testimony then given by said 18 witness was reported stenographically by me in the 19 presence of the said witness, and afterwards 20 reduced to typewriting by Computer-Aided 21 Transcription, and the foregoing is a true and 22 correct transcript of the testimony so given by 23 said witness as aforesaid. 24 I further certify that the signature to the</p>
<p style="text-align: right;">Page 251</p> <p>1 reserved. 2 MR. BARTELA: We'll order it. 3 MR. FALKOF: I'll take a copy. 4 (FURTHER DEPONENT SAITH NOT) 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24</p>	<p style="text-align: right;">Page 253</p> <p>1 foregoing deposition was reserved by counsel for 2 the respective parties. 3 I further certify that the taking of this 4 deposition was pursuant to Notice, and that there 5 were present at the deposition the attorneys 6 hereinbefore mentioned. 7 I further certify that I am not counsel for nor 8 in any way related to the parties to this suit, nor 9 am I in any way interested in the outcome thereof. 10 IN TESTIMONY WHEREOF: I have hereunto set my 11 hand this 6th day of February, 2017. 12 13 14 15 16 17 18 19 20 21 22  23 24</p>

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1 Veritext Legal Solutions
1100 Superior Ave - Suite 1820
2 Cleveland, Ohio 44114
Phone: 216-523-1313

3
4 February 7, 2017

5
6 To: Bradley B. Falkof

7 Case Name: Galoski, Deborah v. Applica Consumer Products, Inc.
Veritext Reference Number: 2522617

8
9 Witness: Paul W. Borth, Ph.D., BCE Deposition Date: 1/26/2017

10 Dear Sir/Madam:

11 Enclosed please find a deposition transcript. Please have the witness
12 review the transcript and note any changes or corrections on the
13 included errata sheet, indicating the page, line number, change, and
14 the reason for the change. Have the witness' signature at the bottom
15 of the sheet notarized and forward errata sheet back to us at the
16 address shown above, or email to production-midwest@veritext.com.

17
18 If the errata is not returned within thirty days of your receipt of
19 this letter, the reading and signing will be deemed waived.

20
21
22 Sincerely,
23
24 Production Department

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1 DEPOSITION REVIEW
CERTIFICATION OF WITNESS

2
3 ASSIGNMENT NO: 2522617
4 CASE NAME: Galoski, Deborah v. Applica Consumer Products
DATE OF DEPOSITION: 1/26/2017
5 WITNESS' NAME: Paul W. Borth, Ph.D., BCE
6 In accordance with the Rules of Civil
Procedure, I have read the entire transcript of
7 my testimony or it has been read to me.
8 I have made no changes to the testimony
as transcribed by the court reporter.

9 Date Paul W. Borth, Ph.D., BCE
10 Sworn to and subscribed before me, a
11 Notary Public in and for the State and County,
the referenced witness did personally appear
and acknowledge that:

12 They have read the transcript;
13 They signed the foregoing Sworn
Statement; and
14 Their execution of this Statement is of
their free act and deed.

15 I have affixed my name and official seal
16 this ____ day of _____, 20____.

17
18 Notary Public
19 Commission Expiration Date
20
21
22
23
24
25

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1 DEPOSITION REVIEW
CERTIFICATION OF WITNESS

2
3 ASSIGNMENT NO: 2522617
4 CASE NAME: Galoski, Deborah v. Applica Consumer Products
DATE OF DEPOSITION: 1/26/2017
5 WITNESS' NAME: Paul W. Borth, Ph.D., BCE
6 In accordance with the Rules of Civil
Procedure, I have read the entire transcript of
7 my testimony or it has been read to me.
8 I have listed my changes on the attached
Errata Sheet, listing page and line numbers as
9 well as the reason(s) for the change(s).
10 I request that these changes be entered
as part of the record of my testimony.

11 I have executed the Errata Sheet, as well
12 as this Certificate, and request and authorize
that both be appended to the transcript of my
13 testimony and be incorporated therein.

14 Date Paul W. Borth, Ph.D., BCE
15 Sworn to and subscribed before me, a
16 Notary Public in and for the State and County,
the referenced witness did personally appear
and acknowledge that:

17 They have read the transcript;
18 They have listed all of their corrections
in the appended Errata Sheet;
19 They signed the foregoing Sworn
Statement; and
20 Their execution of this Statement is of
their free act and deed.

21 I have affixed my name and official seal
22 this ____ day of _____, 20____.

23
24 Notary Public
25 Commission Expiration Date

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1 ERRATA SHEET
VERITEXT LEGAL SOLUTIONS MIDWEST

2
3 ASSIGNMENT NO: 2522617
4 PAGE/LINE(S) / CHANGE /REASON
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20 Date Paul W. Borth, Ph.D., BCE
21 SUBSCRIBED AND SWORN TO BEFORE ME THIS
22 DAY OF _____, 20____.

23
24 Notary Public
25 Commission Expiration Date

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF SEPTEMBER 1, 2016. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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